

Hype Cycle for IT Outsourcing, 2010

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IT outsourcing has proved to be relatively stable and attractive in the current economic conditions. Organizations should use this Hype Cycle to review their sourcing strategies and gauge the potential variety of offerings to meet changing business needs in long-term management contracts.

TABLE OF CONTENTS

Analysis	4
What You Need to Know.....	4
The Hype Cycle	4
Major Changes to the 2009 Hype Cycle	8
The Priority Matrix.....	12
Off The Hype Cycle.....	14
On the Rise	14
Cloud-Driven Business and IT Services	14
Business Process Utility	19
WLAN Outsourcing.....	23
At the Peak.....	24
Knowledge Process Outsourcing.....	24
B2B Integration Outsourcing.....	27
Multisourcing Service Integrator	30
Legacy Application Modernization Services	34
Remote IT Infrastructure Services	38
Sliding Into the Trough.....	42
Storage Outsourcing	42
Application Testing Services.....	44
Globally Delivered Help Desk Outsourcing	49
Communications Outsourcing.....	53
IT Infrastructure Utility	55
Security Outsourcing	59
Climbing the Slope.....	62
Managed Print Services	62
Packaged Application Services.....	64
Custom Application Services	70
Print/Mail Business Continuity and Disaster Recovery	74
Desktop Outsourcing.....	76
Web and Application Hosting.....	78
Entering the Plateau	79
Telecom Expense Management	79
Help Desk Outsourcing.....	81
Internet Data Center Colocation	85
Data Center Outsourcing.....	86
Appendixes.....	90
Hype Cycle Phases, Benefit Ratings and Maturity Levels	91
Recommended Reading.....	92

LIST OF TABLES

Table 1. Common Hype Cycle Combinations of Maturity, Plateau, Range and Penetration	9
Table 2. Hype Cycle Phases.....	91
Table 3. Benefit Ratings	91
Table 4. Maturity Levels	92

LIST OF FIGURES

Figure 1. Hype Cycle for IT Outsourcing, 2010	11
Figure 2. Priority Matrix for IT Outsourcing, 2010	14
Figure 3. Hype Cycle for IT Outsourcing, 2009	90

ANALYSIS

What You Need to Know

The Hype Cycle for IT Outsourcing (ITO) 2010 provides organizations with a comprehensive picture of how ITO services are positioned in terms of market hype and maturity, focusing on the opportunities they offer and the risks they pose. Here, we analyze the full portfolio of multiyear or annuity services, common and emerging delivery models and the specific level of maturity for infrastructure and application management services. General categories/service towers of ITO offerings include data center, network, desktop, enterprise application and help desk services.

While a maturing space, the complexity of the ITO market must not be underestimated, because service offerings in this space and their related service delivery models are continuously evolving. This complexity is a result of changing demand-side and supply-side factors, such as the emergence of new alternative delivery and acquisition models, virtualization, automation, global delivery and the cost-focused buyer market that exists. Organizations must understand the maturation process of the offerings included in the ITO Hype Cycle to review their sourcing strategies, including current services with changing solution sets and new services coming into the market, potential opportunities and benefits from these services and pitfalls to avoid.

Gartner has set up a specific Hype Cycle for "cloud" technology, which, as such, is not included in the ITO Hype Cycle. This Hype Cycle does include a generic profile on cloud-driven business and IT services. In addition, a number of profiles used within the ITO Hype Cycle are also part of other Hype Cycles. In the past, these profiles would be adapted to suit the different Hype Cycles. This year, such profiles are written holistically to cover the range and breadth of a service offering across methods of purchase and service areas. Therefore, wording can in some cases address, for example, consulting and system integration, as well as ITO.

The Hype Cycle

Our research indicates that organizations continue to investigate a growing array of options for this method of delivery including: bundling of services (specifically, application outsourcing and infrastructure), location of delivery and method of purchase. What has become more evident over the last year is the need to prepare for the complexity of the integration and consolidation of new delivery models in existing mature and legacy service portfolios, which in turn, demand a more disciplined and deliberate approach to sourcing via multisourcing.

Regardless of where a service resides on the ITO Hype Cycle, organizations should carefully match their service requirements against various offerings, as well as their individual business needs and their maturity/experience in managing ITO deals during the sourcing strategy phase. Organizations need to consider active management of sourcing risks during the complete sourcing cycle to maximize sourcing success (see "The Importance and Construct of Sourcing Risk Management").

While organizations should understand that the maturity of particular service offerings varies from country to country and between different providers, it is also important to underline that the client sourcing management maturity and the capacity to manage demand impact the likelihood for success of the service relationship and, as a consequence, the actual business outcomes. Organizations should further understand the details and attributes of a described offering because service providers use different taxonomies for similar services. In short: know what you need and for what reason ("Why and What") before you investigate offerings. Do not create demand based on hyped solutions. There must be a business case that underpins the sourcing

activities. Today, everything requires rationale and return, ensure you know what those are prior to engaging in any type of external sourcing arrangement.

Some of the key market forces that have influenced the placement of services on this Hype Cycle are:

- **New delivery models change the nature of ITO services.** Traditionally, infrastructure outsourcing services are considered to be "mature," but the impact of major trends, such as global delivery, standardization, virtualization, utility and cloud services, continue to reshape the composition of market and providers' offerings. Organizations are more actively considering and investigating the growing cloud, (infrastructure) utility and (desktop) virtualization offerings. However, due to the hybrid nature of combining new and old styles of services, it will be difficult to directly quantify all the growth.
- *See the "Infrastructure Utility," "Desktop Outsourcing" and "Cloud Driven Business and IT Services" sections in this document, which include user wants and needs and other survey and key metrics data supporting these statements. As an example taken from infrastructure utility, "Almost half of client organizations use outsourced IU services in North America and 35% in Europe already use these services. Of these, more than 25% plan to implement IUs within 24 months."*
- The clear trend is that an overwhelming number (estimated to exceed 60%) of enterprises (both large and small) will evaluate and pilot some type of cloud-enabled outsourcing offerings within the next 18 months. Similar, business process utility (BPU) was given further momentum because of the recession. As a result, we believe that the BPU portion of the overall business process outsourcing (BPO) market will represent more than 17% by 2012. This is partially pushed by provider marketing, partially driven by provider claimed and end user perceived cost benefits and partially by strategic sourcing decisions.
- Provider claimed, because providers communicate the benefits they have realized for their clients, but what is published is always a colored picture that often excludes investments and transition cost to realize certain operational improvements. End user perceived, because the marketed information generates all the perceptions on what might be possible, but end users can only determine what is realistic when they analyze their specific situation and define real improvements. Nonetheless, as a consequence, these offerings are reshaping the way ITO services are offered, packaged, delivered and acquired.
- **Service integration in total portfolio across extended supply chains.** The combined growth of buyer and provider investments in new delivery models expedites their journey to industrialized ITO services. In the slipstream of these services, organizations more widely appreciate the need for expertise in integrating them in a total portfolio. Not only within, but even more across the extended supply chains, where organizations see the need but also recognize the lack of internal capabilities.
- It leads to a growing business to business (B2B) integration outsourcing market, which often starts through discrete projects to optimize the (automated) integration and with successful delivery outsourcing, becomes a viable option. In the same line, organizations recognize that optimized service integration across providers is another means that can limit total IT spend, while creating a more agile sourcing model to support the (un)expected business changes. This multisourcing service integration (MSI) demand has shown a stable growth over 2009.

- *Note: Gartner Sourcing analysts have together, seen a 100% increase in client interactions regarding MSI from 1H09 to 1H10, as well as from providers as end user organizations considering service integration or service management integration or as Gartner defines it "multisourcing services integration." For providers, Gartner analysts review go-to-market strategies and offerings and for end users, calls originate around the start of a (next) sourcing activity or the reconsideration of organizations in existing relationships whether to keep skills internally or invite a provider to take over the integration responsibilities see "The Role of the Multisourcing Service Integrator in Delivering End-to-End Outsourced Services" and "Case Study: Using External Multisourcing Service Integrator to Streamline Operations"*
- More providers offer such services — often with a different name — and similarly might call them "different." However, the maturity of these offerings is limited, as most providers build the solutions around one successful case without proper statements of work, service metrics and levels, delivery methodology and governance models. Nonetheless, organizations like the idea of handing over the integration of their complex portfolio to a provider and include penalties for failing service levels.
- Economic developments force reconsideration of ITO strategies: In the major western economies financial services bail out actions have provided a short revival in 2009 and early 2010. However, growth is not as stable as expected or maybe hoped, especially in Europe. Europe faces another period of turmoil in light of euro regional instability.
- Organizations, both public and private, are again revisiting their IT investments. However, ITO seems to be largely unaffected (the IT key metrics in 2010 show on average, an expected 23% increase in outsource spending, against 74% for the same and 3% for spending less. This is because there are still organizations that have not outsourced previously, or only on a small scale, for example, private and public organizations that have outsourced before are consolidating and more inclined to take riskier routes in acquiring remote managed services, utility services, generally expect or request a larger share of global delivery of existing services.
- For further information, see Figure 9, "Plans for Change in Outsourcing Levels Next Year" in "IT Key Metrics Data 2010: Key Outsourcing Measures: Outsourcing Profiles: Overview."
- **Global delivery is becoming the de facto standard delivery model.** Global delivery options and models continue to evolve as the tendency to expand beyond traditional application development and maintenance services into infrastructure services and to a lesser extent, business process services, is growing. Traditional service providers continue to aggressively invest in expanding their global delivery centers and capabilities, while Indian providers are leveraging their experience in global delivery to extend their presence beyond application services and into other ITO services. In the current economic climate, global delivery is becoming the predominant standard for service delivery. In many sourcing initiatives, it is no longer a differentiator if a provider has global delivery capabilities, but its absence is a disqualifier if the provider is not able to support all services through a global delivery model.

Clients are even expecting an increased offshore to onshore ratio within the services — without any acceptance of decreased service levels — to further reduce costs. As an example, many midsize and some large companies (those with revenues ranging from \$500 million to \$2 billion) that may be wary of the concept of IT outsourcing, are nevertheless open to partial delivery of remote infrastructure services to supplement their staff, while retaining control over certain infrastructure services.

- **Organizations are more actively investigating and validating global delivery for value added services.** Organizations are starting to recognize the critical need for business outcomes beyond pure labor arbitrage and are becoming more discerning in seeking other measurable business benefits. Moreover, enterprises are focused on time to market and first time, through functionality alignment. Therefore, agile development methodologies, iterative design and SaaS approaches to fulfill functional business needs are receiving an increasing focus.
- Another signal of the increased need for global delivery is the explicit interactions clients and providers seek during Gartner's sourcing events and briefing sessions. Clients ask many questions regarding capabilities of specific countries for specific services or specific providers in specific regions. Where organizations previously accepted global delivery without often completely understanding where services were delivered from, they now take a proactive position in interactions with (potential) providers. These questions are standard when addressing application services and are also becoming an expected standard for remote infrastructure services and utility and cloud services.
- *Note: Gartner sourcing analysts have presented at sourcing events around the globe in the period September to November 2009 and February to June 2010 and have spoken to more than 100 end user organizations and more than 100 providers. On a regular basis, questions addressed global delivery capabilities of providers, concerns and tips and tricks to properly apply or acquire services based on or deploying global delivery.*
- **Regulations, in combination with increasing ITO delivery complexity, demands more attention to security.** The increased regulations in many industries, combined with the challenges of new delivery models such as cloud, also attract more service providers to introduce service offerings for SIEM and log management related to meeting compliance requirements. In particular, where organizations outsource all or significant portions of their IT, application development and/or business processing functions, they also outsource much of their security operations. However, for cloud services, organizations need to consider more carefully what security technologies can be applied (as often, they are already bundled in the overall solution for cloud).
- **Cloud-based services demand grows fast.** Security concerns will grow as all cloud-related services continue to be hyped and attract increased attention. After being new last year, cloud-driven business and IT services has seen a jump in adoption rate from less than 1% to 5% to 20% in one year, with an expected time to plateau in two to five years from five to 10 years last year. Cloud-enabled outsourcing solutions include all types of "managed" services solutions that are developed, bundled and packaged as components of outsourcing offerings, where the IT service provider (usually an outsourcer, but could be any type of vendor) leverages one or more cloud computing technologies within the solution's overall architecture (either in the business process, applications or infrastructure layer).
- The main reason for the exceptionally fast movement of cloud services along the Hype Cycle, is the fast development of cloud consulting services to accommodate the needs of end user organizations to understand and plan for the use of cloud in their service portfolios. Given that all areas of outsourcing can potentially be cloud enabled and service providers can also have service aggregator offerings, this constitutes the second reason for the fast pace of the profile.
- While cloud is growing, it will affect services like Internet data center colocation services. The continued growth of infrastructure utility services, public and private cloud services, and data center leasing, will challenge the growth of colocation, because those services

act as alternatives. Nonetheless, colocation is a mature service offering with high market penetration that is potentially on a downward slope, as industrialized data center solutions continue to gain strength.

- Communications outsourcing lies in the shadow of cloud services and is also seen and promoted by the foremost network service providers as a means to save enterprise communication costs. The scope of communications outsourcing deals may include the support and management of fixed, wireless and mobile technologies, premises-based telephony and unified communications, as well as cloud-based unified communications as a service (UCaaS). The increased adoption of telecom expense management services has also become a center point for these outsourcing services.
- **Utility offerings support legacy migration.** In terms of growth, it is also important to underline the potential of application outsourcing, especially packaged applications. The economy has led more organizations to consider the migration from legacy environments — foremost in enterprise resource planning (ERP) — to packaged applications, with a decreasing interest in legacy interoperability. The growth in demand for packaged applications translates into growing independent software vendor (ISV) investments and a faster maturing market and delivery models. The responsibility for the implementation and integration of packaged applications is recognized in consulting services as well as outsourcing. This is also supported by the maturing utility offerings (especially around SAP) where providers report double-digit growth rates.

The 2010 ITO Hype Cycle shows a slight maturity shift/evolution of the services that are positioned in the Technology Trigger and the Peak of Inflated Expectations. These reflect services that clearly gained traction in 2009, but still have yet to fully prove their consistent business value in the market, like business process utility, B2B integration outsourcing and legacy application modernization outsourcing. However, the latter has two sides — the increased drive to migrate to packaged applications represents a mature offering, especially as organizations tend to minimize customizations and run with the standard and the continued interest in legacy interoperability where, through service-oriented architecture (SOA)-based service orchestration, new products can be created based on legacy environments in combination with new technologies.

However, there are no vetted standards for these offerings and standardization will remain a challenge. It has at least moved the profile into the Trough of Disillusionment as organizations often find the cost for migration or interoperability has a longer return on investment (ROI) than expected. The other slight shift forward is from the Trough of Disillusionment to the Slope of Enlightenment for print/mail business continuity and disaster recovery, IT infrastructure utility and storage outsourcing. Managed print services and custom application outsourcing have taken a further move toward productivity, mainly due to the standardization in services — not in technology.

Mature offerings, such as data center outsourcing, are likely to reappear in different service formats (due to the impact of virtualization and the separation between physical and logical infrastructure outsourcing) and at different stages of maturity in the life cycle.

Major Changes to the 2009 Hype Cycle

This year, there is one new entrant: knowledge process outsourcing (KPO), which is in the early trigger points of the Hype Cycle with a small percentage of target audience. It is the next level BPO service that is only a serious option for very mature end user organizations, where organizations outsource the analytics and intellectual processes that define a business process, inclusive of the decoupling of "where" the business and IT services are created vs. where they

are consumed. This allows organizations to benefit from lower-cost delivery locations, but also access to new locations to sell products or services, or closer to the people organizations need to participate in product or service pilots (like pharmaceutical drug trials).

This year, there are two omissions from the 2009 Hype Cycle. Both LAN support outsourcing and database administration outsourcing have become victims of the trend for consolidation and bundling. LAN support is mostly bundled with desktop or communications outsourcing, but has had almost no traction as a separate demand in 2009. There is a similar pattern for database administration outsourcing, which becomes almost a default component of data center outsourcing or applications outsourcing services, depending on where the outsourcing organization positions its middleware (inclusive databases).

In the past year, neither has seen market traction nor specific offerings from providers to warrant their continued inclusion.

Further, some profiles display a non-standard market-penetration or maturity level for their Hype Cycle position. The general guidelines are shown in Table 1.

Table 1. Common Hype Cycle Combinations of Maturity, Plateau, Range and Penetration

Maturity Level	Time to Plateau	Approximate Hype Cycle Range	Market Penetration
Embryonic	>10 years	Trigger to Peak	None
Emerging	5 to 10 years or 2 to 5 years	Trigger to Trough	<5%
Adolescent	2 to 5 years or <2 years	Peak to Early Plateau	5% to 20%
Early Mainstream	<2 years	Slope to Plateau	20% to 50%
Mature Mainstream	<2 years	Plateau	>50%

Source: Gartner (July 2010)

These variations are explained as:

Cloud-driven business is "Emerging" (instead of "Adolescent")

The hype and momentum around the use cloud computing technologies will drive an accelerated pace and movement of cloud-driven business and IT services, through the Hype Cycle milestones at a much faster velocity than other typical items that we normally track. As such, we believe that in less than five years, there will be major shifts and higher adoption ratios.

Multisourcing service integrator is "Adolescent" (instead of "Emerging")

Most large providers have the capabilities and experience and provide multisourcing service integrator services to clients. It is not an emerging offering in that respect and adolescent fits better, yet the penetration is not increasing quickly. It will always be a very slow mover in comparison to the penetration rate, as this is about outsourcing the responsibilities for managing providers, something which many organizations face with concern — mostly due to their own immaturity.

Application testing services, globally delivered help desk outsourcing, communications outsourcing, security outsourcing, storage outsourcing, managed print services and telecom expense management are all "Early Mainstream" (instead of "Adolescent")

The main reason for these profiles to be ahead the expectation is that they combine very mature and innovative new solutions, which are embryonic to adolescent. However, the overall position

does not move backward, as the new services are not all disruptive, but initially, evolutions of existing services.

Print/mail business continuity and disaster recovery, custom application services, desktop outsourcing, Web and application hosting and help desk outsourcing are all "Mature Mainstream" (instead of "Early Mainstream")

Several providers have been offering these services for many years. To differentiate themselves, providers continue to increase and combine industry and platform capabilities with high process maturity, automation and industrialization. This explains the anomaly in terms of the position. Relative to penetration, it does not reflect maturity as these services have not yet reached a large audience, although some are getting close. However, some will never show a broad level of penetration — like the print/mail business continuity and disaster recovery profile, which has established maturity because the resources exist to provide complete recovery if enterprises chose to do so, even though most do not have a comprehensive print and mail recovery plan in place.

Profile Name Changes

"Cloud-driven professional IT services and solutions" in the 2009 Hype Cycle has now become "cloud-driven business and IT services."

Additionally, as profiles can at times be included in multiple Hype Cycles, packaged application outsourcing, custom application outsourcing and legacy application modernization outsourcing, have all been renamed by replacing "outsourcing" with "services" to allow the inclusion in consulting and system integration Hype Cycles.

Deleted Profiles

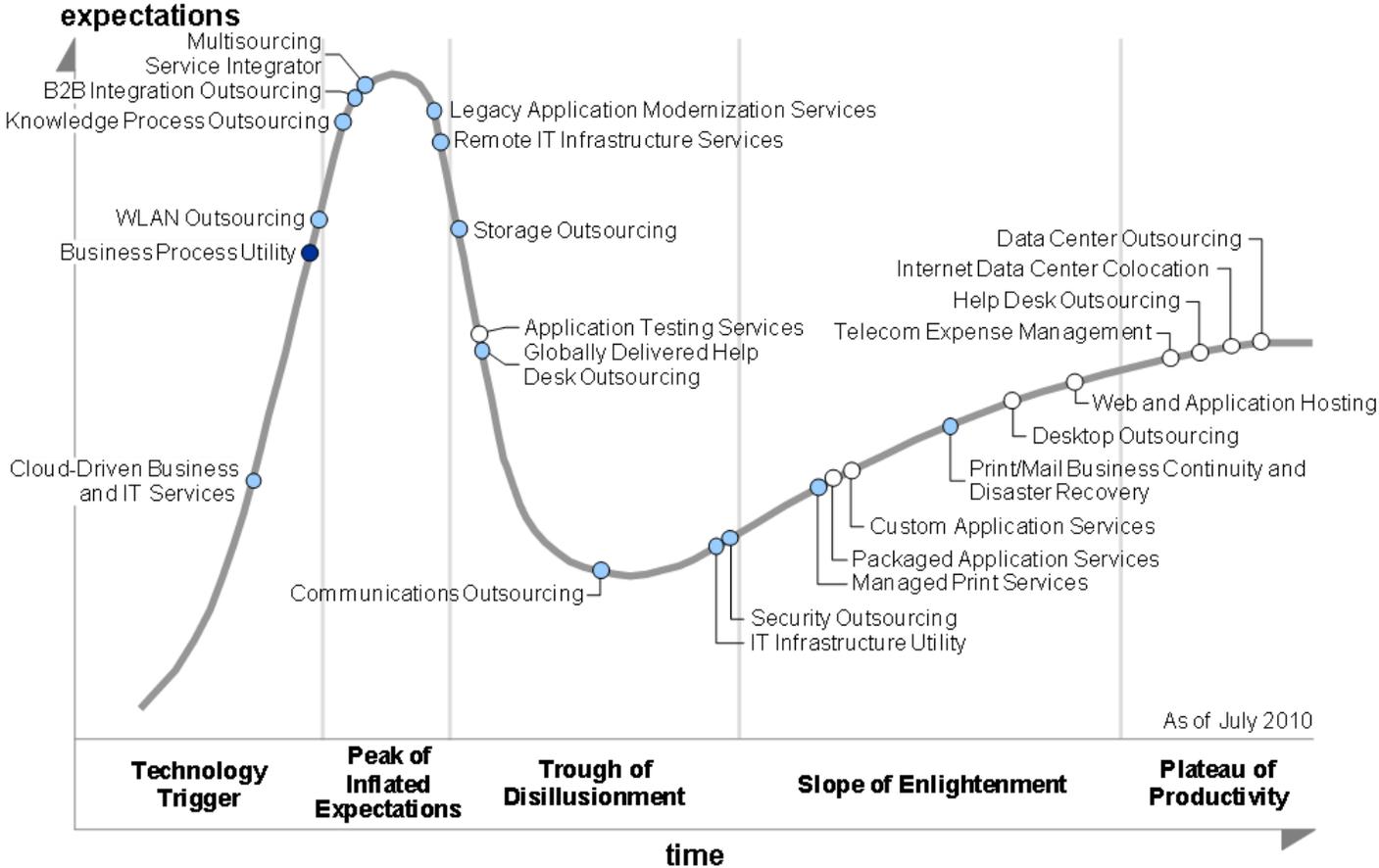
LAN support outsourcing has been taken off, as the service is often included in communications outsourcing and has seen hardly any dedicated interest from organizations during 2009.

Database administration outsourcing has also been taken off, as the service is often integrated with infrastructure outsourcing or application outsourcing and like LAN support outsourcing, has had hardly any specific interest from the market.

New Profiles

KPO is just in the early trigger points of the Hype Cycle with a small percentage target audience. It is the next-level BPO service which is only a serious option for very mature end-user organizations that outsource the analytics and intellectual processes defining a business process, inclusive of the decoupling of where the business and IT services are created vs. where they are consumed. This allows organizations to benefit from lower cost delivery locations, but also access to new locations to sell products or services, or closer to the people organizations need to participate in product or service pilots (like pharmaceutical drug trials).

Figure 1. Hype Cycle for IT Outsourcing, 2010



Years to mainstream adoption:

- less than 2 years
- 2 to 5 years
- 5 to 10 years
- ▲ more than 10 years
- ⊗ obsolete before plateau

Source: Gartner (July 2010)

The Priority Matrix

The Priority Matrix is a companion to the Hype Cycle for ITO, 2010. It maps the benefits of a service by time to maturity in an easy-to-read grid format.

There is a continued evolution in ITO services that is influenced by major trends, such as the extended leverage on global delivery, multisourcing service integration, the introduction of standardized services underpinned by utility, virtualization and green IT. As in 2008 and 2009, there are no services defined as transformational in terms of business impact in 2010.

In the high business impact range, there are some changes. From seven profiles last year with a high impact, there are five profiles this year. Two profiles have been demoted. Application testing services and multisourcing service integrator have been repositioned to moderate. Testing services can have a clear impact, but until now it has not yet proven a more than moderate value to organizations.

Although service providers will disagree, the majority of organizations have not outsourced the full potential of testing and are losing out on per application, platform or project basis. Multisourcing service integration is mainly a service to optimize the integration of IT services from an end to end perspective and generate a reliable and sustainable portfolio of IT services. While integration is paramount for end to end success, the related cost and investment (overhead, tooling and processes) should not be underestimated, nor should the integration capabilities of providers be overestimated.

The high-value profiles are Web and application hosting, telecom expense management, cloud-driven business and IT services, print/mail business continuity and disaster recovery and security outsourcing.

As last year, print/mail business continuity and disaster recovery services has a low chance of being deployed. However, when it does, it has a high benefit, because it allows the continuity of business mail and (financial) transaction output in case of a disaster. Security outsourcing, without a doubt, generates high value to the business, mainly based on risk mitigation, yet its impact closely relates to the capabilities of the provider and the technologies used.

Cloud services in all their representation forms are perceived as the new panacea, yet value and security risks lie close together. Providers have recognized the concerns and have started to include security as standard components of their cloud offerings, inclusive of improved service delivery models, pricing and terms and conditions for end users.

Telecom expense management is a form of business process outsourcing, although it comprises highly automated processes and tools and can potentially lead to continued savings of 10% to 35% of total telecom spending. Web and application hosting is similar to Internet data center colocation as it represents a competitive and alternative offering to cloud and can be seen as an intermediate state for organizations. As for data center outsourcing, this offering can generate clear benefits for organizations that outsource their (Web) application environment without having to invest in data center and connectivity capacity and capabilities. Further, it remains high as the continued importance of alternative delivery models, such SaaS, application platform as a service and cloud-related services and an increasingly complex application landscape, evolve.

In 2010, we have again seen several changes to the Priority Matrix in terms of "Timeline Until Mainstream Adoption" and "Market Penetration." Market penetration and timeline to mainstream adoption are important for readers in understanding their risks in service maturity, near-term opportunities that may suit an organization's immediate sourcing needs, as well as for planning for future sourcing engagements (through the evolution/refinement of the sourcing strategy).

The heavy interest in packaged applications has moved it faster forward to maturity (both in terms of Time to Plateau to less than two years, as the move from adolescent to mature mainstream). It must be noted that this growing surge mainly relates to customer relationship management (CRM) and ERP, where SaaS solutions for CRM start to take over the market and for ERP, where the majority still are reliant on-premises- or utility-based installation of the major brands.

As can be expected, cloud-based services have also seen their relative position move from "five to ten years" last year to "two to five years" this year. Less expected is the repositioning from WLAN outsourcing into the two to five years position and from emerging to adolescent. Gartner expects carriers and large system integrators to bundle WLAN outsourcing with WAN, voice, conferencing and hosting capabilities, which will result in a bundling into communications outsourcing. However, the design and installation of a WLAN is complex and if not done properly, can be costly in ongoing bad user experiences or re-installing the access layer infrastructure.

A strong contender for long-term business value is BPU, which poses an attractive alternative to traditional BPO in the simplicity of bundled pricing per transaction, such as per employee or per loan processed. There are two types of BPU; one originates from "pure play" providers that came into existence in the Internet age and the other originates from older, larger providers that predate the Internet but that always delivered multiclient solutions, based on shared technology and that now infuse their offerings with Internet-based technologies.

Pure play BPU is a still small subset — around 12% — of the overall BPO market. The inclusion of more-traditional providers morphing into cloud-based BPU provision expands the size of this approach considerably — as an example, 30% of the existing outsourced HR market is already a BPU or cloud-business service.

The investment of many pure-play and full-service providers on developing testing offerings and capabilities has determined the change of application testing services from adolescent to early mainstream. Increased provider investment is starting to materialize in increased end-user adoption.

Despite its apparent maturity, ITO continues to evolve. Thus, clients should regularly review their IT service portfolio requirements and related sourcing strategies. In defining the scope of their outsourcing initiative, clients should remember that increasingly, the maturity of ITO services will appear as a "three-legged stool." The first leg will be the maturity of a specific offering in the marketplace, the second leg will be represented by the maturity of a specific offering in the provider's portfolio and by the validity of the strategic road map to support it over time and the final layer of maturity (the third leg) will be given by the capabilities used to deliver those services — a layer that will continue to be challenged by the shift to deploy and leverage on global delivery capabilities.

Overall, the outsourcing market is evolving — under the pressure of global delivery, cost optimization, vendor consolidation, application modernization and rationalization and alternative delivery models — toward a more industrialized stage on which sharing of processes and tools, knowledge and economies of scale drive increased service reliability, lower cost and higher flexibility to and across client organizations.

Figure 2. Priority Matrix for IT Outsourcing, 2010

benefit	years to mainstream adoption			
	less than 2 years	2 to 5 years	5 to 10 years	more than 10 years
transformational				
high	Custom Application Services Telecom Expense Management Web and Application Hosting	Cloud-Driven Business and IT Services Knowledge Process Outsourcing Print/Mail Business Continuity and Disaster Recovery Security Outsourcing		
moderate	Application Testing Services Data Center Outsourcing Desktop Outsourcing Help Desk Outsourcing Internet Data Center Colocation Packaged Application Services	B2B Integration Outsourcing Communications Outsourcing Globally Delivered Help Desk Outsourcing IT Infrastructure Utility Legacy Application Modernization Services Managed Print Services Multisourcing Service Integrator Remote IT Infrastructure Services Storage Outsourcing WLAN Outsourcing	Business Process Utility	
low				

As of July 2010

Source: Gartner (July 2010)

Off The Hype Cycle

LAN support outsourcing has been taken off as the service is often included in communications outsourcing and has seen hardly any dedicated interest from organizations during 2009.

Database administration outsourcing has also been taken off as the service is often integrated with infrastructure outsourcing or application outsourcing. As for LAN support outsourcing, this service has received hardly any specific interest from the market.

On the Rise

Cloud-Driven Business and IT Services

Analysis By: Frances Karamouzis

Definition: There are two components of cloud-driven business and IT services.

The first area includes all types of consulting, advisory, business analysis, IT architecture analysis, application portfolio and cloud readiness, system integration, deployment and testing services delivered by service providers to enterprises. These services may also include a service aggregator role. An aggregator role is brought to bear where the service provider delivers a service that can include one or more of the following: responsibility of overseeing (program management), governance, brokering the delivery, managing the delivery, integrating the services, bringing together various vendors, taking on the specific areas of risk; legal compliance of the scope of services. The main objective of the business and IT services are focused on assisting enterprises navigate and implement various areas of cloud computing technologies and determining the impact on business and IT within the enterprise. This includes providing business advisory services to strategically help clients determine the potential impact on their business model, options for shifts in their technology architecture or future opportunities.

The IT consulting, deployment and testing services include all types of IT services related to pilots or full engagement of all types of cloud computing in their IT portfolios. These efforts are being delivered across different layers of technology architecture, including system infrastructure, application infrastructure, applications, information, business process and ecosystem management. Thus, consulting, advisory, deployment and testing services cross different areas and may include multiple service companies.

The second area of cloud-driven business and IT services includes all types of solutions that are developed, bundled and packaged as outsourcing offerings, where the business or IT service provider leverages one or more cloud computing technologies within the solution's overall architecture. Gartner refers to these services as "cloud-enabled outsourcing offerings." Here, again, the services can include a service aggregator role. Depending on the type of outsourcing involved BPO, application outsourcing or infrastructure outsourcing), the aggregator role can be within a layer of service, such as infrastructure aggregator, applications services integrator, process architect, business solution aggregator (see "The Services Value Chain Defined").

Cloud-enabled outsourcing solutions include all types of "managed" services solutions that are developed, bundled and packaged as components of outsourcing offerings, where the IT service provider (usually an outsourcer but may be any type of vendor) leverages one or more cloud computing technologies within the solution's overall architecture (either in the business process, applications or infrastructure layer).

Some clarifications of the definition are as follows:

- The term "services" can refer to either labor-based resources, automation, intellectual property or the combination thereof.
- The leveraging of the cloud computing technology can be organic or through some type of partnership or alliance. This may include the aggregation services described above.
- Managed or outsourced solutions are where an external third party is legally contracted (usually on an annuity basis) to assume responsibility (either in whole or in part) for business or IT services.
- Cloud computing technology is based on the previously published Gartner definition (see "Five Refining Attributes of Public and Private Cloud Computing").
- The offerings themselves may be on a public cloud or private cloud. Here, again, we refer to Gartner definitions (see "The Spectrum of Public-to-Private Cloud Computing").

One example of cloud-enabled outsourcing may be a platform BPO offering, where the business process, application and infrastructure layers are bundled where the infrastructure is delivered

through the cloud. This will be a common example of a cloud-enabled outsourcing offering. With so many variables and components in each outsourcing layer (BPO, application outsourcing and IT infrastructure), the combination of the different types of cloud-enabled outsourcing offering is extensive.

Position and Adoption Speed Justification: The first area (consultative and advisory services) of these cloud-driven business and IT services has already shown considerable adoption levels as enterprises are consistently evaluating and analyzing the impact of cloud within their organizations. Similar to previous Technology Triggers, consultants and system integrators often experience a spike in demand when there is a great deal of hype in the market regarding disruptive options for cost savings or agility. These adoption levels will continue to be among strategic and high-impact business and IT services, where many service providers will be helping clients create cloud strategies, analyze application readiness, deploy private clouds, pilot solutions and seek to exploit the technologies for business benefit. Vendors will jockey to position themselves as thought leaders, strategic advisors, aggregators and implementers of the architected solutions. Gartner has forecast market size and growth (see "Forecast: Understanding the Traditional IT Services Opportunities Related to Cloud Computing, Worldwide, 2009-2013"). In summary, a large portion of this type of consultative, advisory and system integration work will likely take the same type of trajectory as other types of professional services that were premised on a disruptive technology-driven shift that comes to the market. It acts as a trigger, prompting clients to engage external service providers investing in specific expertise. Once some of the skills, competencies and solutions become mainstream, the spike in demand tapers off.

The second area, cloud-enabled outsourcing offerings, is still maturing, and many of the business and IT service providers have not yet fully marketed and priced their offerings. The market potential is so significant that all the large and midtier vendors are feverishly developing and piloting offerings with early adopter clients. Here, again, Gartner has forecast market size and growth of several components of outsourcing (see "Forecast: Public Cloud Services, Worldwide and Regions, Industry Sectors, 2009-2014," "Forecast: Infrastructure Utility Services, Worldwide, 2009-2013" and "Dataquest Insight: Sizing the Worldwide Business Process Utility Marketplace, 2008-2012"). Given that all areas of outsourcing can potentially be cloud-enabled and that service providers can also have service aggregator offerings, the outlook for growth is significant. Due to the hybrid nature of combining new and old styles of services, it will be difficult to directly quantify all the growth. The clear trend is that an overwhelming number (estimated to exceed 60%) of enterprises (both large and small) will evaluate and pilot some type of cloud-enabled outsourcing offerings within the next 18 months. However, the level of investment and long-term impact will vary by offering. As such, Gartner plans to conduct specific research within each layer of outsourcing.

As the adoption of cloud computing accelerates, so, too, will all types of advisory services that professional IT service firms deliver. The large service providers have already assigned senior-level global leaders to be directors or "cloud computing czars," supported by consulting teams of professionals as well as outsourcing resources that are leading the efforts to educate and assist clients with questions related to the impact of these new disruptive technologies. Furthermore, professional service firms have reported many ongoing strategic cloud services assessments and business and IT planning work with clients.

These firms have begun extensive R&D efforts and have created solution architecture teams to formulate, architect, construct and test their outsourced and cloud services offerings. Several have also formalized relationships with key cloud computing vendors, such as Google, Microsoft and Amazon, to utilize portions of their solutions in their outsourced offerings and their client relationships. Many of these offerings are still emerging, and others are in their early stages. Many of the vendors that Gartner has interviewed are actively working on their cloud services

strategy, their value proposition, their go-to-market strategies, their pricing models and, most importantly, their service-level structure and service-level agreements (SLAs).

It's important to monitor this area, because these new services are likely to be the most disintermediating offerings on the market, as well as representing the biggest paradigm shift for enterprise buyers. The primary reason is that the mature and established IT service firms have extensive risk management structures that form the basis of how they define and contract SLAs for their solution offerings. Thus, they will be focused on understanding, architecting, testing and ensuring that scalability, predictability and manageability of the entire end-to-end solution (including the cloud-based portion) will be what the IT service can support. This will be critical to the adoption and growth of cloud computing technologies and services.

Overall, we see the positioning of cloud-driven business and IT services as still emerging. However, the hype and momentum around the use of cloud-computing technologies will drive an accelerated pace and movement of cloud-driven business and IT services through the Hype Cycle milestones at a much faster velocity than other typical items that we normally track. As such, we believe that in less than five years, there will be major shifts and higher adoption ratios.

User Advice: With regard to consultative advisory and system integration services, the long-standing Gartner advice with regard to making choices based on alignment to key performance indicators, and new growth exploration while incorporating all choices in the business-driven sourcing strategies and management life cycle still prevail. Additional due diligence should be done during the evaluation and selection process, as well as the contracting process, due to the relatively new area of cloud computing and the incredibly dynamic and fast-growing technological changes being introduced. For each of the key phases of the sourcing life cycle, Gartner has published specific advice for moving forward (see "The Impact of Cloud Computing on Sourcing Strategy Models," "Negotiation and Contracting for Cloud-Enabled Outsourcing," "Cloud-Enabled Outsourcing: New Ideas for Effective Governance and Management," and "Buy Industrialized Services to Quickly Reduce Outsourcing Costs and Risks").

With regard to cloud-enabled outsourced offerings that leverage disruptive cloud technologies and new vendor offerings, be cognizant that a significant number of offerings that IT service providers are introducing are in development or being piloted. As a result, each class of offering — whether an infrastructure utility solution leveraging cloud infrastructure or a software-as-a-service-based solution leveraging an application infrastructure or other types of business services — needs to be thoroughly evaluated for all the key risk areas. See "SaaS Dynamics Continue to Act as a Catalyst for the Convergence of Services and Software" for a sample decision framework.

It is critical that organizations maintain the appropriate level of ownership for governance to ensure that they drive the right behaviors among vendors to manage overall service delivery and contingency planning. Due to the embryonic nature of outsourcing solutions, at times, keep the resolution of operational issues separate from the resolution of commercial terms to ensure continuity of service and business. The enterprise approach and culture must support a problem-solving, rather than punitive, mentality when problems arise, as they undoubtedly will with embryonic technologies.

With regard to structuring the deal, enterprises must have accurate and usable end-to-end, service-level definitions that they can use to shape integration points, and manage and operate the program. Integration and interoperability will be among the most important risk areas to analyze and manage on an ongoing basis. In this regard, cloud-enabled outsourcing offerings likely will have several integration points, as well as multiple vendors. Thus, operating-level agreements (OLAs) that align with the specific SLAs are critical but hard to achieve as the solutions are highly standardized. In a best-case scenario, OLAs should be agreed on at the

contract negotiation level, before an award is made. For existing relationships, the organization must retrofit OLAs.

Business Impact: For advisory and consultative services, enterprises must be able to gain insights and analysis on how to harness cloud computing technologies to further their strategic use of IT. In the long term, the enterprise can more clearly identify and execute IT architectures that provide competitive parity versus competitive advantage.

With regard to outsourced offerings that utilize cloud computing, enterprises will need higher-level access to more-industrialized solutions that offer shorter adoption timelines and faster ROI in IT services.

The long-term impact of cloud-driven business and IT services and solutions will be material and significant with regard to their size, breadth and savings levels within the overall IT service industry. It will provide more choices for enterprise buyers. It will reshape the service provider landscape, because major barriers to capital-intensive areas, such as infrastructure or applications, will be removed.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Emerging

Sample Vendors: Accenture; Capgemini; Convergys; CSC; Epam Systems; Fujitsu; HCL Technologies; Hexaware; IBM; Infosys; L&T Infotech; Tata Consultancy Services; Virtual Ark; Wipro

Recommended Reading:

"The Impact of Cloud Computing on Sourcing Strategy Models"

"Negotiation and Contracting for Cloud-Enabled Outsourcing"

"Cloud-Enabled Outsourcing: New Ideas for Effective Governance and Management"

"Vendor Management for Cloud-Enabled Outsourcing: Understand the Fundamentals"

"SaaS Dynamics Continue to Act as a Catalyst for the Convergence of Services and Software"

"Case Study: Wipro's Pragmatic Use of Cloud Services"

"Buy Industrialized Services to Quickly Reduce Outsourcing Costs and Risks"

"Data Center Managed Services: Regional Differences in the Move Toward the Cloud"

"Cloud-Enabled Infrastructure Outsourcing Affects Sourcing Decisions and Market Structure"

"Cloud-Enabled Outsourcing: Use BPM to Ensure Process Agility in Alternative BPO Service Delivery Models"

"Cloud-Computing Service Trends: Business Value Opportunities and Management Challenges, Part 1"

"Cloud-Computing Service Trends: Business Value Opportunities and Management Challenges, Part 2"

Business Process Utility

Analysis By: Claudio Da Rold; Robert Brown; Ben Pring

Definition: BPUs, increasingly used as cloud-delivered business services, are externally provisioned process management services based on highly standardized processes and unified one-to-many technology platforms. The service provider manages direct business process inputs (often automated) as well as business processes. The service provider or the service recipient can execute the outputs. Contracts typically feature per-transaction fees with monthly minimums. Individual service recipients fund their customization/configuration or integration with other processes or applications. No fees are paid for a stand-alone software licence, the customer simply pays for the business process service.

Position and Adoption Speed Justification: BPUs could also be called "cloud-delivered business process services" or "business process outsourcing on demand." As an alternative delivery architecture for BPO services, BPU adoption continues to rise among buyers globally. It is being purchased both from "niche" specialist BPU vendors as well as from established BPO vendors that have aggressively started to offer "cloudsourced" process offerings in conjunction with (or complementary to) established one-to-one BPO service contracts.

Examples of existing BPU tasks have around for some time (like the payroll offerings from providers such as ADP and Ceridian), but in many respects BPU mirrors the trends in the SaaS marketplace, although it is not as advanced and as developed as SaaS. The difference between SaaS and BPU is that with BPU, the client is receiving not only an application (as a service), but also a process offered as a managed service. A distinguishing element of BPU from SaaS will be SLAs for BPU. These will involve business outcomes like process turnaround times, levels of accuracy or client satisfaction (whereas those of SaaS typically only feature technically-focused SLAs like platform availability/uptime and security).

While most BPU services will be enabled by SaaS-like cloud platforms that automate process transactions through advances in one-to-many software technologies, some will offer scalable managed services delivered by users as well (that is, a BPU provider could augment platform-enabled process delivery with actual staff to execute elements of the process that cannot yet be automated). The difference between "traditional" BPO and BPU is that BPU providers design, own and deliver the process and the platform, and the process is, therefore, highly shared and standardized across the client base.

BPU poses an attractive alternative to traditional BPO in the simplicity of bundled pricing per transaction, such as per employee or per loan processed. We also see elimination of redundancy of spending on multiple software platforms as an obvious rationale for BPU. Through centralization on a standard platform, a rational view of regionally or organizationally diffuse process structures becomes possible. Additionally, through greater centralization and focus on standard processes, businesses can also reduce the risk of compliance issues. That said, security within a one-to-many offering — like industry-specific BPU for banking — will be essential to commonplace adoption. Just as the e-commerce sector has had notorious cases of customer data breaches over the past decade, it is reasonable to expect that there will be a few high-visibility "implosions" of specific BPU providers based on compromised security, the severity of which could cause BPU market adoption to erode.

There are two types of BPU; one originates from "pure play" providers — such as PayPal or Amazon's business services — that came into existence in the Internet age; the other originates from older, larger providers — such as ADP — that predate the Internet but that always delivered multiclient solutions based on shared technology and that now infuse their offerings with Internet-based technologies. "Pure play" BPU is a still small subset — around 12% — of the overall BPO market. The inclusion of more-traditional providers morphing into cloud-based BPU provision

expands the size of this approach considerably; as an example, 30% of the existing outsourced HR market is already a BPU or cloud-business service (see "Dataquest Insight: Sizing the Worldwide Business Process Utility Marketplace, 2008-2012").

Interest in BPU is growing and the current rise in interest in all things "cloud" is partly responsible. The recessionary period of 2009 was also a huge watershed moment for BPO and its prior, singular focus on fixed-price customization, ERP-enablement, and cost reduction through offshore. Buyers quickly looked at new models for service delivery that avoided arduous, multiyear implementation, speed-to-solution cycle times, and ROI associated with traditional forms of BPO premised on the above characteristics. Whereas our previous assumptions for BPU as a whole anticipated market growth in parallel with the recession of 2009, Gartner expects to see a significant acceleration of growth in the market after 2010 due to a combination of a rebound in macroeconomic market conditions and the increased maturity of BPU-style solutions. Thus, the recessionary climate of 2009 has given greater momentum to BPU, but shunted out much of the adoption momentum to 2010 onward, as BPO buyers and providers "hunkered down" to get through 2009, often using traditional one-to-one models. As such, BPU was given further momentum precisely because of the recession.

As a result, we believe that the BPU portion of the overall BPO market will represent over 17% by 2012. This makes the BPU a very complex endeavor (or a complex market in itself) in which traditional providers and services will be increasingly subsumed by innovative and focused providers, delivery models and services with impact on a virtually unlimited range of functional, process and service areas. This creates the apparent paradox of an adolescent approach that has still a way to go up to the top of hype and a long time to maturity. The penetration in the different functional, process and service area will be patchy and non linear and will require a deeper understanding of the specific requirement of processes and target clients than most providers currently have.

In fact, vendors operate in a broad set of differentiated niche segments, and some niches are more mature and more advanced than others. Some notable examples of BPU include Accenture's Navitaire revenue management service in the airline sector. We have seen recent offerings from procurement specialist Rearden Commerce and AMEX's AcceptPay platform in the small or midsize business payables arena, a Steria joint venture with the U.K.'s National Health Service (NHS) or Power Advocate, a Boston-based provider that operates in the energy sector, providing procurement-related services.

As the general interest of new delivery models and cloud services unfold, so new types of provider take this approach. Gartner recently predicted that Indian-based and offshore providers in general will take a role in the delivery and aggregation of cloud services (see "Gartner's Top Predictions for IT Organizations and Users, 2010 and Beyond: A New Balance"). In fact, some of these providers are investing in developing "end-to-end processes," "as-a-service" or "in-a-box" and platform-based BPO that fills the category of BPU/cloud business services. The potential effect of lowering the price of IT services due to both automation and low-cost labor may clearly underline why Gartner believes in the potential for rapid growth of this side of the service market.

Entrepreneurs within traditional BPO companies, and in new ventures that have spotted the challenges and lack of sustainability of some traditional one-to-one BPO models, are busy using alternative technologies, such as SOA, SaaS and Ajax as examples to develop newer, more-cost-effective solutions. They recognize the commercial opportunity that exists for an alternative breed of applications and process-based solutions. Some traditional BPO providers that have historically had a strong business process consulting capability and are eagerly turning to analytics and KPO services, such as IBM and Accenture, also believe that BPU is a means to an end; their bet is that it will effectively "set the table" for a common automated process platform that will in turn generate considerable amounts of data concerning clients' processes that can be

mined through higher-value added KPO and analytics services, and thus preserve their status as "transformational" business process service providers. Provider platform players like Infosys, TCS and Genpact also see the same linkage.

BPU interest stems from the standpoint of easy-to-use, good enough, high-automation and configurability, lower total cost of ownership, and limited or no investment "service on demand" approach. The push toward cloud-computing-based, IT-intensive services will provide the broad prospective audience, the computing platform sharing and the scalability needed to deliver the next version of online business process services.

User Advice: Enterprises should examine the emergence of BPU in a discrete context and also as it relates to the overall development of BPO. Two key elements to look for that will determine BPU suitability are levels of scale that can be obtained, and potential for automation. Enterprises should include the validation of regulatory compliance, data integrity and privacy when moving from an outsourced service that was limited to the process itself to a service that includes the hosting infrastructure and supporting applications and is provided remotely. In the other case that enterprises already outsourced their complete process inclusive applications and infrastructure, they should have already addressed these issues and will have to use the same principles to validate the new alternative.

In the medium term and longer term, enterprises should craft change processes that will take enterprises from their current steady state of traditional BPO to the potential improvement embodied in the idea of BPU. As processes "decompose" and become increasingly "virtualized," only those organizations that have thought through what this new world will look like will be in a position to quickly take advantage of these new paradigms. Sourcing "business processes from the cloud" while promising lower-cost solutions, offered in ways that facilitate greater technology-oriented interoperability, will bring new and different challenges.

Most notably, the need to "orchestrate" services being delivered by multiple BPU providers will need significant attention. Troubled implementation may continue unabated before the primary BPU supplier (or broker/prime contractor) notices it — the partner may be reluctant to come forward until it is too late. Miscommunication between partners in traditional BPO has been fairly common and will likely be most prominent among early-stage BPU offerings that have not settled best practices to platform management or implementation. These issues would likely be most acute for BPU providers, because they assume overall responsibility for process risk and management, and, therefore, liability for the overall project.

BPO providers' solutions architects to identify areas in which BPO services have crossed a threshold from manifesting utility aspects and are "ready for prime time" to be highlighted as "BPU-like" or cloudsourced process services offerings that are ready to meet multiple clients' needs. Characteristics to look for and highlight include process automation; if the process is delivered using the Internet as its connectivity medium; if it can be delivered on a one-to-many basis; if it's priced on a per-transaction basis ("by the drink"); and, whether contractual service-level agreements describe the delivery of processes, not merely software functionality (do not confuse your BPU offerings with your SaaS offerings). If a separate brand is rolled out for the BPU offering in parallel with traditional BPO services, then corporate marketing considerations will come into play as well (for example, Accenture's BPO practice has its Navitaire BPU sub-brand for the airline sector).

Business Impact: The potential benefits of agility, speed to market (based on a best-practice, prebuilt service) and pay-per-use pricing are important drivers in the uptake of BPU contracts. Businesses will increasingly try to determine whether competitive differentiation is required in the form of high customization in BPO contracts. The success of BPU delivery hinges on buyers eschewing their traditional demands for customized solutions that do not deliver competitive differentiation.

The potential benefits of a BPU approach are particularly evident for processes that are executed in a similar way by multiple organizations, for horizontal processes (such as HR and procurement), or when a core, but nondifferentiated, process must evolve for business or regulatory reasons, and multiple organizations are willing to share the cost of evolution, such as the ongoing rollout of new customers for Steria's healthcare BPU services for NHS hospitals in the U.K.

More business processes will become BPU candidates. In CRM, the advent of automated technologies like interactive voice response and Web self-service portals has only added to the automation of these processes. Further advances in Web-based customer inquiry functions will further propel the adoption of the BPU model among customer retention processes. In the government sector, although concerns regarding security will limit broad adoption of public Internet platforms, the necessity for outreach services to taxpayers and communities will draw government entities increasingly onto the Web.

BPU services for a broad range of processes including tax collection and records management will develop out of early-stage SaaS-type applications. In the financial services sector, processes such as loan origination in banking or securities clearing and settlement. Some of these transaction-based processes will begin commoditizing to such an extent that only large-volume organizations will be able to justify the cost of custom processes. We expect a rising number of IT-intensive business services to be developed and offered as BPUs by nontraditional IT services players, especially in association to new business and service models developed on cloud computing.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: 3i Infotech; ADP; Ceridian; Corefino; Equiduct; Exigen; Gradatim; Hexaware; Meta4; Navitaire; PayPal; Peopleclick; Power Advocate; Rearden Commerce; Sircon; Steria; Symbility Solutions; Syntel; Turquoise

Recommended Reading:

"Forecast: Public Cloud Services, Worldwide and Regions, Industry Sectors, 2009-2014"

"Market Insight: Seven Ways Vendors Could Inadvertently (or Intentionally) Destroy the BPU Market"

"Taxonomy of BPO Delivery Architecture: Know What You Are Really Buying"

"Cloud-Enabled Outsourcing: Use BPM to Ensure Process Agility in Alternative BPO Service Delivery Models"

"Emerging Service Analysis: Business Process Utilities, BPO and Cloud Computing Hype Cycles"

"Market Insight: Use the Top Five Complaints From Buyers to Shape BPO Marketing Messages"

"Dataquest Insight: Sizing the Worldwide Business Process Utility Marketplace, 2008-2012"

"Predicts 2009: Consolidation, 'Cloud,' and Clarity of Innovation for Business Process Services"

"Determine the Applicability of BPU Contracts When Outsourcing"

"Xansa Delivers Business Process Outsourcing for Finance and Accounting, Payroll, and Procurement for England's National Health Service"

WLAN Outsourcing

Analysis By: Timothy Zimmerman

Definition: The skills needed to deploy a wireless LAN (WLAN) are different from other networking technologies. Instead of understanding the complexity, many enterprises are looking to offload the planning, design, installation and management of their mobility requirements to external organizations that have the experience to understand the firms' environments to achieve the desired user experience, which includes addressing capacity as well as quality of service. Once WLANs are installed, there are additional opportunities to provide/manage the ongoing spectrum and security scanning requirements to address compliance requirements such as PCI in retail.

Position and Adoption Speed Justification: The ratification of 802.11n, combined with the integration of wireless into PC as a default configuration, is increasing the momentum of wireless connectivity at the access layer of the network. As organizations are being asked to rapidly deploy wireless in conference rooms and receptions to address mobility and guest access needs, it is important to note that the technology has a different set of installation requirements whose complexity can introduce not only coverage holes, but also security holes, if not properly installed. This complexity is not only driving the market for outsourced WLAN services for large enterprises, but also for small or midsize businesses (SMBs) that do not have the expertise to manage this required access layer technology, especially in an economy where IT organizations are being asked to do more with less.

Service providers have historically left the "islands" of WLANs alone as part of the enterprise network outsourcing offerings; but now that wireless connectivity has mainstreamed, this capability has been added. Gartner expects carriers and large system integrators to bundle WLAN outsourcing with WAN, voice, conferencing and hosting capabilities. We also expect data collection vendors that have historically provided wireless in warehouses, distribution centers or retail environments to migrate their presence into the carpeted enterprise.

User Advice: Enterprises need to understand their capacity, access, security and performance requirements to ensure that the design and implementation meet their end-user experience requirements. Communication of these SLA or key performance indicator (KPI) requirements to any outsource providers can provide criteria for vendor selection, as well as ensure that the business objectives for the solution are met and maintained. We believe that WLAN outsourcing will become a standard option for the access layer, but that pricing will be confusing as providers offer a number of monitoring service options, as well as pricing options, by either access point or by user.

Business Impact: The design and installation of a WLAN is complex, and if not done properly, can be costly in ongoing bad user experiences or reinstalling the access layer infrastructure. Organizations want to have the same confidence in their wireless experience as they do in the wired connectivity. Experienced vendors provide proper upfront guidance, installation, and ongoing management of functionality and spectrum to ensure that design assumptions do not change and the performance of the WLAN continues to provide value to end users. Vendors will offer additional services, such as security and compliance reporting, to increase the footprint within the account.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: AT&T; Excalibur Integrated Systems; IBM Global Technology Services; Motorola; Verizon Business

At the Peak

Knowledge Process Outsourcing

Analysis By: Frances Karamouzis; Cathy Tornbohm

Definition: KPO is a term that has emerged to distinguish a specific type of BPO that is related to highly skilled professional services. The term KPO has generated a great deal of hype and is often used in provider marketing materials in an attempt to position the service offering as a higher value-add than transactional BPO, because it is using highly skilled people to perform skills requirements that are differentiators. Consequently, Gartner research has focused on clearing showing the elements that make KPO distinctive.

Gartner views KPO as a type of BPO that has at least four distinguishing characteristics:

- A service provider offering, with a core value proposition premised on providing industry- or business-specific expertise, such as analytics and clinical trials research, rather than just technology or transaction processing expertise.
- A labor pool of knowledge workers with skills and competencies in the targeted business process or function, rather than a transactional labor pool (of primarily data entry clerks or call centre staff).
- A deep understanding (in the form of methodologies, tools, process accelerators, business skills and enabling technologies) on the part of the service provider of the targeted business process (that is, specific process flows, value drivers, and functional or subsector knowledge). The methods, tools, accelerators and overall service providers capabilities must also include elements related to the assessment of the process, knowledge transfer and change management areas.
- Specific assets in the form of intellectual property (on the part of the service provider rather than just labor) centered on the targeted business process that directly affects efficiency, effectiveness or business outcomes.

Position and Adoption Speed Justification: Gartner believes that overall KPO areas will mature concurrently at an uneven pace as different industry-specific KPO areas will undergo growth at varied levels depending on the adoption rates of enterprises and the commensurate investment of IT services providers. KPO will continue to make steady, consistent strides in selected industry subcategories (subclasses) rather than huge bursts of growth.

There will be some industry subcategory (subclass) in which disruptive technology options (cloud, mobile, software as a service) will enable a major breakthrough or trigger market demand, given it draws significant attention. However, the fragmented nature of all different types of KPO serves to diffuse the overall KPO category of service. Moreover, if critical mass is reached in one specific KPO subcategory (subclass) — for example clinical trials — it has limited correlation and impact on the growth and acceleration of another KPO subcategory (that is, legal). Therefore, it is likely that the growth will not be uniform.

Several key drivers will lead to KPO adoption. While these drivers apply to most BPO offerings, they are particularly applicable to KPO, due to the associated complexity and costs. The motivation for pursuing KPO-style activities differs by service type, is diverse and can include:

- **Access to talent** — KPO adoption has grown, partly because of organizations wanting to get a significant talent pool of skilled, yet affordable, labor in locations where salaries are lower (especially appealing to the legal and banking professions). It's also interesting to note that certain boutique KPO firms are flourishing with regard to finding talent and often do better than mainstream BPO firms. Many current KPO deals are structured to allow clients to access a generic pool of skilled business researchers or consultants who will work on ad hoc projects for a company, though these tend to be contracted on multiyear deals.
- **Financial operational expenditure model** — Enterprises do not need to make an upfront investment in the people, the remote delivery locations or the workflow and related technologies; rather, they pay for services as they are consumed (as in the utility model). The operational expenditure model is particularly attractive to the government, healthcare, education, services, nonprofit and retail sectors.
- **The economies of scaling** — Third-party providers of KPO will be supporting other organizations; therefore, similar to many service providers, they are often able to spread the costs across clients and take advantage of certain economies of scale.
- **Access to new countries** — These are locations where you might want to sell services or products.
- **Access to people** — KPO providers can be located nearer to a wider pool of people to participate in product or service pilots, especially for pharmaceutical drug trials.
- **Industrializing processes** — This involves taking advantage of centralizing processes in a lower-cost location, improving them and potentially freeing up management to concentrate on other processes.
- **Analytics-driven decision making** — This involves the use of statistical data, trending information, quantitative analysis, and predictive models to drive decisions and actions.

Today, KPO has been adopted by less than 5% of its target audience. Gartner expects this service to start picking up great adoption in 2011, as existing buyers and service providers of all types of IT services begin to demand higher levels of operational excellence, agility and the leveraging of new disruptive technologies and service delivery models. The delay in adoption of KPO services has occurred because it is, as yet, specialized to specific industries and is often provided by relatively unknown third-party service providers. However, as larger, better-known service providers with bigger marketing budgets start to capitalize on their existing client base and R&D investments, the market will start to grow. All these companies, large and small, will require time to master scaling, marketing and delivering KPO services.

Some of the most significant KPO adoption inhibitors include:

- Outsourcing of the core competency of mission-critical business process, which involves key industry knowledge of an enterprise.
- Identifying, separating and documenting tacit knowledge versus explicit knowledge, which is a mandate for any knowledge-driven outsourcing deal.
- There is a high degree of difficulty and granular blueprinting required to execute KPO that is often lacking in many organizations. Given that KPO is increasingly delivered via a global delivery model (GDM), which inherently involves decoupling of "where" the business and IT services are created versus where they are consumed, it becomes a critical task in the KPO strategic analysis to understand and dissect the interoperability

and links among all the tasks and knowledge capital in the entire end-to-end business process.

- Buyers will have concerns about security and privacy of data, because many of the business processes selected are often mission-critical.
- Given that KPO often involves mission-critical business processes, the global delivery of KPO raises many more complexities and risks. And the reality is that disentangling or reversing a globally structured outsourcing is orders of magnitude higher in terms of cost, complexity, change management and political challenges.
- There is a requirement for a larger critical mass of credible BPO vendors with credible offerings — service provider persistence and patience, relative to starting with proof of concept on small, probably uneconomical, pilots; finding the right buying center in the business, not the IT department; potentially long initial sales cycles; sales force training; customer education; and the preparation of marketing material. Insufficient upfront investments in these types of functions played a key role in delaying the market adoption of KPO.

User Advice: The term KPO is today used as a collective noun for individual industries' outsourcing analytics and intellectual processes, and therein lies the biggest risk for enterprise buyers; namely, the true level of depth in process and industry knowledge of the service provider in the specific subsegment. The single biggest challenge for the service provider is building critical mass coupled with a level of depth that allows the service provider to manage margins. Consequently, this presents a risk to enterprise buyers.

Within the overall KPO market, the service offerings in each industry segment continue to evolve and take shape. Therefore, enterprise buyers require a high level of due diligence when purchasing these services to ensure they will indeed deliver on the value proposition. At the moment, there are some core technology tools and foundational skills that tend to be horizontal; however, based on our distinguishing characteristics above, until a critical mass of knowledge workers, coupled with deep intellectual property, is established with expertise in a targeted business process or function, the specific offering from any service provider will still be considered embryonic KPO.

The difficulty for clients and service provider relationships has been to define appropriate ways to measure benefits, productivity and value-add. As such, many deals still resort to rate card comparisons and skills assessments. Furthermore, enterprises struggle to identify and compare selective KPO providers, as many of the specialties are very niche areas. At the moment, there is a large fragmented array of niche service providers coupled with large providers of other BPO services seeking to extend their offerings to areas of KPO.

Buyers should proceed with a great deal of due diligence, phased expectations for a multiyear journey, and the expectation of higher levels of vendor management and governance requirements. KPO remains in the early stages of the services life cycle, and there are limited numbers of vendors with extensive critical mass in a given industry subsegment. Gartner research shows that when a service category is in its infancy, the service levels are usually at their lowest and risk is at the highest point in the cycle.

Gartner recommends that enterprises invest in understanding and decoupling their business processes to determine the specific opportunities for value. The benefits can be achieved in several ways: KPO assures enterprises that their operational processes are being executed for competitive advantage, and KPO offers enterprises external expertise, insight, best practices and process.

Business Impact: Depending on the targeted business process and offering — including people, methodology and intellectual property — the option can be transformational in reducing costs and formalizing ways of working in professional services, such as legal support. The effects on business are the rethinking and redistribution of subprocesses across disparate locations based on a combination of risk, security, cost and competency (including business, language and technical skills), resulting in completely new modes and delivery costs.

Benefit Rating: High

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: Accenture; Cognizant; Epitome; Genpact; Infosys Technologies; Integreon; Marlabs; Tata Consultancy Services; The Smart Cube; Wipro; WNS

Recommended Reading:

"Distinguishing the Reality of Knowledge Process Outsourcing From the Marketing Hype"

"Cool Vendors in Business Process Services, 2010"

B2B Integration Outsourcing

Analysis By: Benoit Lheureux; Paolo Malinverno

Definition: B2B integration outsourcing is a specific category of discrete IT outsourcing usually applied to any type of B2B integration project, and occasionally applied to internal integration projects. It combines the outsourcing of technical B2B infrastructure, specifically integration as a service (IaaS), with the outsourcing of people and processes to implement and manage B2B integration projects.

B2B integration and outsourcing generally includes the following high-level components:

- B2B infrastructure — traditionally, this was B2B software implemented either on-premises or via application hosting, but, increasingly, this is implemented via IaaS.
- One-time implementation of a B2B integration project — for example, definition of B2B documents, maps for translation and provisioning of connections to trading partners and external service providers (ESPs).
- Ongoing B2B integration project management — including B2B infrastructure operations, reporting, support and change management (i.e., everything necessary to manage a B2B project).

Companies use B2B integration and outsourcing in many ways; however, common multienterprise projects include:

- E-commerce projects — these involve trading partners, such as for buy- or sell-side direct procurement of materials in the manufacturing sector, and retail/consumer packaged goods procurement relating to supply chain management and CRM projects.
- ERP and SOA extension projects — when connecting internal application functionality associated with internal ERP or SOA projects with external trading partners (for example, to receive purchase orders electronically from customers directly into your order entry system).

- Cloud services integration projects — to integrate cloud services with on-premises applications and data, and among cloud services across multiple providers.
- B2B consolidation projects — IT projects that seek to support multiple B2B integration projects in one infrastructure.
- Multinational e-invoicing projects — especially in Europe and South America.

Position and Adoption Speed Justification: IT vendors have offered various forms of B2B integration outsourcing for years; however, the recent growth of multienterprise projects (see "Q&A: Hot Questions for Multienterprise (B2B) Integration") is prompting more companies to reconsider their B2B strategies. This includes considering whether to implement multienterprise infrastructure themselves or to outsource this task. Traditional e-commerce projects continue to drive increasing adoption of B2B integration outsourcing, but the proliferation of cloud computing, particularly SaaS, is driving additional demand to address cloud-to-cloud and cloud-to-on-premises integration projects.

Many companies successfully brought B2B projects in-house via B2B software during the decline of electronic data interchange value-added networks in the early 2000s. However, the need to scale up these projects to cope with more B2B dealings, and to address often-diverse B2B protocols and data formats, combined with increasing pressure on IT organizations to outsource noncritical competencies (particularly in a down economy where capital is tight), is — according to many Gartner clients we have spoken to — fueling a selective withdrawal from new investments in modernizing or scaling up in-house B2B projects. It is also increasing interest in the outsourced approach.

In addition, as companies make a "leap of faith" by capitalizing on business functionality from cloud-computing and SaaS vendors, it is natural for the same companies to outsource their cloud service integration requirements, because many of the factors that go into the SaaS versus enterprise software sourcing decision — such as lack of capital, propensity to outsource noncore competencies, the desire to reduce internal IT assets, etc. — apply to implementing integration projects as well.

Vendors are doing a better job of creating bundled IT outsourcing offerings that more consistently and clearly combine the right services (such as multienterprise communications, in-line translation, community ramp-up and ongoing project management) into simpler pricing models. Some of these include fixed-price components — for example, a single price to develop a map for translation or to "onboard" a new external business partner or to connect to a cloud-based service. The vendors in the B2B integration and outsourcing market are remarkably diverse, reflecting the wide range of B2B project styles enumerated earlier:

- Vendors such as Crossgate, GXS, Inovia, Sterling Commerce and Tieto offer stand-alone B2B integration and outsourcing services, typically for traditional e-commerce projects, such as supply chain integration.
- Vendors such as Atos Origin, Capgemini, HP (EDS) and IBM offer B2B integration and outsourcing, more typically in the context of larger outsourcing projects, such as business process outsourcing.
- Vendors such as Appirio, Bluewolf and Celigo conduct B2B integration and outsourcing, often in conjunction with the system integration they offer for cloud-computing/SaaS projects.

- SaaS providers, such as Workday, offer B2B integration and outsourcing in conjunction with their SaaS offerings to lower obstacles to doing business with them (see "Seeding the Cloud: B2B Flexibility Drives SaaS Adoption").
- Providers such as Boomi, Cast Iron Systems — just acquired by IBM (see "IBM Adds Comprehensive Cloud Service Integration to WebSphere via Cast Iron Acquisition") — Informatica and Pervasive Software deliver IaaS as an enabling technology, so that other IT service providers can bundle it into B2B integration and outsourcing; these providers also offer IaaS for direct consumption by companies that implement B2B themselves.
- Providers such as E2open, Elemica and Hubspan deliver B2B integration and outsourcing bundled into business process networks that combine prebuilt integration and networks for specific multienterprise processes, such as order-to-cash, vendor-managed inventory (VMI) or transportation management.

Several recent industry events underscore that there is a broad, industrywide recognition of the importance of B2B integration outsourcing and the expectation that this market segment will continue to expand: GXS and Inovis merged (see "GXS/Inovis Merger Is Likely Precursor to an Initial Public Offering"), and SPS Commerce recently became an initial public offering (see "SPS Commerce Will Wield Its IPO Like a Sword, But Not Lethally, in the Battle for B2B" and "SAP Finally Makes a Decisive Move in the B2B Market"). All of these companies specifically cite B2B integration outsourcing as their more-important, fastest-growing lines of business.

Given these industry events and our perception of substantially increased client interest in this approach to B2B, we believe that B2B integration outsourcing is just short of the Peak of Inflated Expectations. We believe that the Peak of Inflated Expectations is likely to occur in the next 12 months, then IT users will experience a very brief dip into the Trough of Disillusionment as they experience minor disappointment from oversimplified vendor positioning and commitments, discover that many "off the shelf" B2B integration outsourcing offerings don't easily support their custom B2B project requirements, and experience minor disruptions and confusion as vendors in the B2B integration solutions market segment, merge or are acquired. We don't believe the dip into the Trough will be dramatic, and, after that, B2B integration outsourcing will soon progress onto the Plateau of Productivity.

Based on the combined factors above, and our perceptions from client discussions of increased demand and solution maturity, and in line with our 2009 expectations, we believe that, through 2014, B2B integration and outsourcing services will show a five-year average compound annual growth rate of nearly 20%.

User Advice: Consider B2B integration outsourcing when you need to implement an IT project to integrate your internal applications and data with your external business partners or with cloud services, but would prefer to consume IaaS and have someone else implement and manage the B2B integration project.

Like internal integration, multienterprise integration is a complex task. Also, much of the intellectual property associated with B2B projects is often "sticky" and, as such, difficult to transfer to another provider or to return in-house. You, therefore, need to select B2B integration outsourcing vendors carefully, treating them as strategic technology partners. This is important because, although "multisourcing" such projects could save you if one vendor falters, this approach also means that intellectual property related to integration — such as maps for translation — is implemented using different solutions from different providers. Another drawback of multisourcing is lower economies of scale — relative to a larger project with a single vendor — which is likely to mean a higher overall project cost.

Vendor viability will be particularly important for larger projects (involving hundreds or thousands of external business partners) with a five-year or longer life span. Although complex projects may require custom implementations and quotes, prospective customers should consider vendors that manage costs by using a multitenant B2B infrastructure implementation — and (when available) prebuilt integrations, rather than custom deployments — and that offer unit pricing for one-time and recurring fees (rather than custom quotes).

Business Impact: Although many companies implement their own B2B integration projects, the alternative — B2B integration outsourcing — offers potential benefits for almost all firms, small or large, across all industries and geographies. This is because these IT projects are relatively easy (e.g., compared with more-complex application infrastructure projects involving SOA) to segregate and outsource, and because providers of B2B integration outsourcing offer a viable and cost-effective alternative to implementing these projects in-house. The impact of B2B integration outsourcing will continue to be substantial, and we predict that most midsize and large companies will still outsource at least some of their multienterprise integration projects and implement some in-house (see "Q&A: Hot Questions for Multienterprise (B2B) Integration").

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: Accenture; Advanced Data Exchange; Appirio; Atos Origin; Bluewolf; Capgemini; Celigo; Comarch; Crossgate; DiCentral; eBridge Software; eZCom Software; E2open; EasyLink Services International; EDS; Elemica; GXS; HP; Hubspan; IBM; Infosys Technologies; Inovis; Kewill; Liaison Technologies; nuBridges; OmPrompt; QLogitek; RedTail Solutions; Seeburger; SPS Commerce; Sterling Commerce; Tieto; Wipro Technologies; Workday

Recommended Reading:

"Magic Quadrant for Integration Service Providers"

"Knitting Clouds Together: How Integration as a Service Enables B2B Integration Outsourcing"

"Q&A: Hot Questions for Multienterprise (B2B) Integration"

"Taxonomy and Definitions for the Multienterprise/B2B Infrastructure Market"

"Market Trends: Multienterprise/B2B Infrastructure Market, Worldwide, 2008"

"Cost Savings Finally Make the (European) E-Invoicing Steamroller Pick Up Speed"

Multisourcing Service Integrator

Analysis By: Jim Longwood; Gianluca Tramacere

Definition: The role of MSI is undertaken by the client or a third party contracted by the client to act as its agent to coordinate and integrate service delivery in an environment that uses multiple internal and external service providers for the delivery of IT and business process services. The MSI has a direct contractual relationship with the client organization that is distinct from and concurrent with the main outsourcing agreements. As such it has a less formal contractual relationship with the other providers delivering services to the client organization, as opposed to a more formal prime contractor relationship where the prime contractor has explicit back-to-back agreements with each subcontracted provider.

The MSI's role and working relationships should still be encompassed in a multisource OLA between all parties. The MSI role is particularly applicable when using a selective sourcing or best-of-breed consortium model — in the prime contractor model the role is explicitly undertaken by the prime contractor (see "Selective Sourcing Model's Strengths, Weaknesses, Opportunities and Threats" for details of various sourcing models).

The MSI may be engaged to manage the integration of end-to-end services (in this case, the relationship would be more explicit via an OLA), or may be a consultant engaged to advise the organization on how to equip itself to perform these services internally. As an interim step, we see some client organizations taking on this role themselves, often retaining control over the first-level help desk function.

Furthermore, the MSI may be engaged to perform outsourcing or consulting and system integration services in addition to those associated with the integrator role. For example, one trend is to award an MSI scope of work to the service/help desk provider that acts as a single point of contact for first-level inquiry, thereby giving the MSI visibility of the entire service environment. Usually, the MSI isn't held responsible for delivering the business outcomes of the deal but for enabling their achievement.

The role of MSI is quite different from the "program management" competency that is applicable in large, complex, multiproject application services deals (see "Ten Competencies and Key Activities for Mastering Multisourcing").

For more information, see "The Role of the Multisourcing Service Integrator Function in Delivering End to End Outsourced Services."

Position and Adoption Speed Justification: The trend toward multisourced services environments is the trigger for today's MSI role. Using multiple internal and external providers is now the norm, not the exception. In a recent study, Gartner found that, in North America, client organizations on average engage 4.8 infrastructure service providers and 13.5 providers overall. Figures for the more mature IT markets of North America, Europe, the Middle East and Africa, and Australia are similar, and are likely to increase in the coming years.

When organizations embark on a selective best-of-breed sourcing strategy as their preferred operating model, most do not fully appreciate the challenges, especially when integrating and converting a multivendor team of best-of-breed providers into a disciplined champion team that delivers a seamless end-to-end service, or the need for a service integration role to achieve this. They often underestimate the importance of defining the right governance framework, the joint roles and responsibilities required to work with providers, and the contractual arrangements needed to integrate service delivery. Thus, the number of staff engaged (with the right skills and competencies) is often too few to ensure service integration or too many to guarantee clarity with regard to roles and responsibilities.

Consequently, many organizations that tried to fulfill the MSI role internally were challenged by sheer lack of resources and knowledge about how to perform it, and they began looking to service providers for resourcing and research organizations like Gartner for advice on best practices.

Service providers' response to this need remains slow, owing to the complexities of imposing an MSI role on existing contracts and of overcoming issues of trust between all the different parties.

With the global financial crisis prompting organizations to focus on cost optimization issues, the rise of the MSI has slowed. However, during the past six months, anecdotal evidence indicates that Gartner analysts have taken many more calls on this topic: from vendors inquiring about the role; from client organizations wanting to know what characterizes a good candidate for the MSI

role; and from vendors and client organizations wanting to understand what is involved in optimizing the performance of multiple providers.

We expect interest in the MSI role to accelerate as client organizations return to growth and adopt emerging service delivery models such as infrastructure as a utility, software as a service, infrastructure as a service, and other cloud services, which will further increase the need for the MSI role.

We observe that the MSI role is being marketed more frequently by service providers, especially those with strong consulting and system integration capabilities. These providers capitalize on their established methodologies through the work of their seasoned managers and are developing the related toolsets required for service integration. There is now a broad range of potential providers with credible methodologies for service integration management that are good candidates for fulfilling the MSI role.

In 2008, Royal Dutch Shell awarded a notable MSI contract to EDS (see "Shell's Outsourcing Award Shows Multisourcing Leadership"). This was a turning point for the MSI role, and we are now seeing this role included in the retendering of major outsourcing contacts. However, uptake of the MSI role in environments with business process outsourcing services is less than in pure IT outsourcing environments.

The MSI role also represents a market opportunity for providers to sell higher-end, consulting-like capabilities. These could potentially command higher prices and higher margins, and give providers an opportunity to develop closer relationships with client organizations.

User Advice: Adopt the following best practices if you have multiple service providers, are experiencing end-to-end service delivery issues, and are considering an MSI arrangement:

Recognize that, although an MSI can facilitate service integration, your outsourcing organization must maintain an appropriate level of ownership and authority for governance and service delivery. Nor can the MSI take the place of client-provider relationships, although it has a key role in facilitating seamless end-to-end service delivery by all providers.

Define an effective governance framework that all parties can understand and agree to use as part of an overarching OLA. Include joint roles and responsibilities, as well as collaboration principles. Clearly define the key underpinning operational processes for the MSI role, such as call, incident, change, configuration and escalation management. Separate operational issues from the commercial terms enabling each provider to protect proprietary information, such as pricing and specific contract terms.

Include forums, such as vendor cooperation councils, to foster better communications and a collaborative working environment supported by the governance framework. Align governance with the business outcomes required, and establish comanagement processes to gradually build trust between all parties, based on clear expectations and roles identified in the OLA.

Define clear end-to-end service-levels and associated key performance indicators that the MSI can use to shape its integration and reporting program. Have clearly defined joint responsibilities where handoffs between providers are involved.

Give the MSI operational responsibility and visibility of end-to-end service delivery, and the authority to report problems, suggest remedies and facilitate collaborative efforts to perform remedies. Ensure the MSI has full control, or at least visibility, of the service desk environment, in which resides knowledge of key processes such as incident and problem management and, crucially, knowledge around the service performance expected and delivered by each provider.

Roll out multisource OLAs gradually to the existing strategic providers, and include OLAs in contract negotiation and retendering before an award is made.

Help the MSI foster a trusting, collaborative work environment for all parties — one that mitigates normal competitive tensions — and engender a culture of joint and "no blame" problem-solving when cross-service tower/vendor problems arise.

Use frameworks like the Information Technology Infrastructure Library (ITIL) v.3 to define standard delivery and support processes to, improve communications between providers, and serve as a common platform for operational excellence.

During the evaluation and selection process, validate each potential MSI's ability to integrate services, how many qualified and skilled staff it has available for the MSI role, and its customer references for similar services.

Business Impact: When well scoped and executed, the MSI role will prove a big help in breaking down providers' service silos, supporting seamless, integrated, end-to-end service delivery, and reporting to the client organization. In turn, this will reduce the cost of resolving problems arising from poor process handoffs between providers.

As the role of MSI matures, it will increasingly focus on fostering collaboration between providers, process excellence and the appropriate degree of standardization needed to reduce IT complexity. This will further optimize operating costs and business agility. It will also improve operational efficiency and business effectiveness over time.

Understand that the MSI role will require funding, which should come out of your sourcing management budget. For example, when clients move to a multisourced environment, we expect at least a 25% increase in their sourcing deal management costs; if your current single-sourcing management overhead is 4% to 8% of annual deal costs, then it might rise to 5% to 10% of annual deal costs in a multisourced environment.

The MSI role is key to enabling disciplined multisourcing in order to deliver required business outcomes from third-generation multisourced deals.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Adolescent

Sample Vendors: Accenture; Capgemini; CSC; Deloitte; Fujitsu Services; HP Enterprise Services; Infosys; SAIC; Tata Consultancy Services; Unisys

Recommended Reading:

"Developing the Culture of Multisourcing Collaboration"

"Define Operating-Level Agreements to Enhance Performance When Outsourcing"

"Well-Deployed Multisourcing Competencies Help to Optimize Costs"

"How to Bundle Your Services in an Infrastructure and Application Outsourcing RFP"

"Q&A on Multisourcing"

"Q&A on the Right Number of Application Outsourcing Providers to Use"

"Comanagement Processes Put Sourcing Governance Into Action"

"How to Differentiate Between 'Multisourcing' and 'Multivendor'"

"Use Trust and Control to Improve Global Sourcing Governance"

"Understand Outsourcing Evaluation, Selection and Transition Costs to Lower Risk"

"User Survey Analysis: IT Outsourcing Opportunities Arise From Crisis, North America, 2008-2009"

"Understand How Competencies Mature to Increase Your Multisourcing Capabilities"

"Understand the Three Generations of Outsourcing to Improve Deal Outcomes"

Legacy Application Modernization Services

Analysis By: Gilbert van der Heiden; Frances Karamouzis

Definition: Legacy application modernization services include discrete IT consulting or system integration (SI) work to analyze and modernize an application or the outsourced services of ongoing maintenance and management for legacy applications. Modernization can address the migration of legacy applications or application functionality to new applications or new platforms, and the addition of new applications or functionality that interact with legacy applications to provide new functions for the business.

Legacy application modernization services require the inclusion of application architecture responsibilities throughout the process to maximize the alignment of the selected modernization solution with the enterprise architecture approach and the strategic business objectives of the organization. Application architecture ensures that solutions meet current needs, while effectively moving the application portfolio toward a future solution architecture vision. It determines what should and what should not be modernized, how it should be modernized, and how it should be integrated into the total application portfolio.

The options for legacy application modernization include re-platforming, re-hosting, re-coding, re-architecting, re-engineering or interoperability, mostly through a technology platform that is based on SOA and Web services; or eventually replacement and retirement. Legacy application modernization includes the application architecture effort to clarify which option should be selected.

IT consulting services focus on the analysis and selection of the modernization options against their respective business value and risks. Where legacy application modernization requires business process re-engineering, this will be designed by consultants. SI services execute the selected modernization option and ensure the tactical and operational alignment of the modernization activities within the larger infrastructure, application and business process portfolio. SI services include the technical and logical architecture and the discrete efforts to implement the architected solution.

Legacy application modernization outsourcing addresses the management's responsibility for the modernization efforts and the ongoing application support and optimization, including the possible retirement of certain applications. Outsourcing services are often bundled with consulting and SI where applications are business-critical, to minimize the impact on business continuity.

Position and Adoption Speed Justification: Market hype around legacy modernization remains relatively high. Legacy modernization supports the top three business expectations (as identified by CIOs in Gartner's 2010 CIO survey): improving business processes, reducing enterprise cost and increasing the use of information/analysis. For example, external providers can add capabilities that increase the efficiency of a legacy-based business process, and reduce cost

through the use of global delivery combined with automation and industrialized delivery processes; and through interoperability solutions organizations can access and process content from legacy environments through service-oriented business applications. These services can be delivered through advisory services, SI and outsourcing.

Legacy application modernization as part of the focus on overhauling entire portfolios of applications has been reinvigorated in many enterprises. The primary reasons for this include the following:

- A ruthless focus on the identification and eradication of cost in regard to ownership and management of applications driven by economic uncertainties in the past 18 months. This has been a driver for advisory services and project services for rationalization and modernization, as well as the outsourcing of legacy environments inclusive of end-of-life/phase-out services.
- New disruptive forms of application options, including the cloud and software as a service, have forced application managers to revisit cost structures and evaluate new alternatives, especially in the area of CRM (like RightNow and Oracle OnDemand). Therefore, application portfolio analyses are being undertaken, which forces an analysis of legacy applications as part of application architecture initiatives. This has been a strong driver for SI services.
- More aggressive business changes in specific vertical markets that require the revamping of legacy applications for compliance, speed, agility and new functionality. This has resulted in the bundling of consulting and SI services, and is often combined with outsourcing the revamping responsibilities, including the management of the landscape thereafter.
- Enterprises that still rely on legacy environments for their core applications, yet need to consider the migration to packaged applications to address the maintenance and functionality limitation issues. This is specifically relevant in the finance and insurance industries, where the additional driver lies in the complexity and integration dependencies of the legacy landscape. This has fueled the interest in legacy interoperability.
- The continued attraction of investment by enterprises in application infrastructure and middleware software to automate business processes and connecting packaged and legacy applications. This drives the integration services foremost, and requires especially capable application architecture capabilities to maximize the business impact of integration.
- The last reason is pushed by providers:
- Legacy modernization services are being marketed as a major lever for driving savings by consulting firms, system integrators, application development and maintenance service providers. Providers build their offerings on industry knowledge, business process capabilities, proven legacy technology platform knowledge and migration strategies, market and integration technology capabilities, and legacy infrastructure and operations management capabilities. The terms used in offerings are mostly "legacy transformation" and "legacy modernization," in combination with messages that relate to the perceived cost savings.
- At the other end of the scale, offerings are brought to the market under the banner of SOA and enterprise service bus solutions, which are positioned to generate new business based on legacy data. This is often combined with the message that these are

lower risk and require a shorter implementation time, generating a faster ROI. These are also known as "legacy interoperability" solutions and are mainly the premise of integrators. Legacy interoperability solutions provide a service layer on top of legacy applications (providing access to the content and functions in legacy applications), and create the front end to actively deploy legacy applications in new services to business processes and users.

The market has shown a slight shift toward the migration to packaged applications above the implementation of interoperability solutions. While on the interoperability side solutions are numerous and at all levels of maturity, the migration to packaged applications predominantly sees a movement to SAP or Oracle solutions for ERP, which are mature solutions. This has led Gartner to move the profile to post-peak in terms of maturity. Alongside it the disillusion grows, as the ROI of migrations is often not proven and clients still fail to properly prepare their business cases. This is where modernization of consulting services can add real value on a per-industry and application technology basis.

The lack of proper application architecture efforts by most organizations will strengthen the chance of failed benefits from the migration efforts. Legacy interoperability solutions require the same considerations as application migrations, proved by Gartner's growing research that addresses the need for an application overhaul. Organizations need to revisit their portfolios based on their business strategies, and create and maintain a focused application strategy.

Legacy application modernization has a particular additional traction to advisory services: legacy modernization often directly affects business environments that are core to business users. Business interaction and business process analysis and integration capabilities are needed to convince business to commit and minimize business risks. Internal modernization efforts would undoubtedly face similar road bumps; however, when an external provider is leading the charge for modernization, the internal IT organization may view this as a threat. Governance and management on the part of the organization will be critical.

User Advice: Enterprises need to consider the following key advice when they intend to acquire legacy modernization support from the market. Consulting, SI and outsourcing service providers with legacy modernization solutions and services need to ensure that their offerings address the concerns raised in the advice:

- When planning for and executing a modernization effort, focus on sourcing management and governance best practices, application portfolio rationalization, documentation, and rigor in ensuring business unit involvement before, during and after the modernization effort takes place.
- Quantify upfront the expected impact of modernization on the business and IT organization (and the time frame to realize benefits), and track these metrics carefully to document success/failure. It is unlikely that there is a single modernization effort in your organization, and lessons learned (good and bad) should become a part of your outsourcing and governance strategy.
- Select a provider with proven deep-domain and technical skill sets in the business applications you are considering modernizing, as well as sound client references for modernization deals. For large-scale or mission-critical modernization initiatives, do site visits with the provider and at least one of its references. Consider this for consulting, SI and outsourcing services.
- Be realistic about what roles you want the service provider and your internal business and IT organization to play in the new environment. It is unlikely that you can fully outsource the modernization applications and subsequently have the right skills and

know-how to bring the application back in-house. However, if you need to, plan carefully (including career paths over time) and build up capabilities in parallel with the modernization schedule. Use consulting services to help you set up the right capabilities if you lack human capital management capabilities.

- Set up a risk register that addresses the process, people, technology, services and financial risks of the modernization efforts throughout the decision and implementation cycle. Have a back-out or retransfer plan in place for business-critical modernization efforts.
- Pay special attention to security, data integrity, data privacy and regulatory compliance when outsourcing modernization activities, especially when considering using off-premises solutions and global delivery models.

Business Impact: Legacy application modernization services — consulting, SI and outsourcing — have the potential to help organizations in the following areas:

- Reducing the cost of maintaining and managing legacy applications.
- Decreasing the risk of business failure due to a lack of legacy support capabilities.
- Increasing the degree of business agility through both migration and interoperability efforts.
- Preserving critical software/intellectual property (IP) assets and allowing their reuse even after migration, or through interoperability.
- Making business processes more efficient and cost-effective by applying market-driven re-engineering.
- Reducing the cost associated with applications in production after modernization has been concluded.

Investment in modernization activities should not be taken lightly and enterprises need to understand that the cost of modernization should be offset against the risk of legacy failures that impact the business directly as well as indirectly — customer perception is a far greater liability for many organizations than the impact of a "severity one" incident on operations. When capabilities are less of an issue, enterprises should consider investing in creating new business products with the inclusion of legacy knowledge and IP through interoperability solutions. These are often lower-risk and lower-impact alternatives that can more easily be piloted and abandoned if the results are not satisfactory. And such initiatives can be executed in shorter time frames against lower cost.

In all cases, legacy modernization affects systems or processes that are around for a while and will always have a greater business involvement and opposition than upgrading mainstream environments. Providers and organizations therefore need to ensure well-balanced communication to business users, addressing their concerns and (perceived) risks.

From the providers' perspective, modernization is a potential opportunity (although more risky, complex and costly) to offer higher-value services above and beyond routine application maintenance and support. It allows for potentially better margin services when they establish a business-level involvement with their clients which can generate consulting and SI demand to address the modernization. And where modernization effort materializes, it can also be higher-margin services when the modernization requires niche capabilities that have limited availability in the market.

Modernization is mostly not limited to applications only, but includes the underlying infrastructure. In most consulting and integration project-based engagements, the infrastructure is part of the application landscape and is included in modernization activities. Organizations can also outsource the application and infrastructure layer to realize the synergy of modernized applications on a modernized infrastructure (utility) platform.

Due to the specific and often highly customized nature of legacy environments, Gartner does not believe that legacy application modernization services will ever become a mature portfolio of consulting, SI and outsourcing services, although providers can and should have mature delivery models.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Accenture; Ateras; Atos Origin; Capgemini; CGI; Cognizant; CSC; IBM Global Business Services; Infosys Technologies; Logica; RightNow Technologies; Tata Consultancy Services; Trinity Millennium Group; Wipro

Recommended Reading:

"Application Overhaul Key Initiative Overview"

"Mainframes and Legacy Core Applications Still Dominate the IT Infrastructures of Many Insurers"

"Gartner on Outsourcing, 2009-2010"

"Toolkit: Interactive Sourcing Risk Register"

"Portfolio Analysis for Global Delivery of Application Development"

Remote IT Infrastructure Services

Analysis By: Richard Matlus; Ian Marriott; Jim Longwood

Definition: As a form of IT infrastructure outsourcing, remote IT infrastructure services provide for the remote support and management of IT functions from external delivery sites. These services do not involve the transfer of hardware and software assets to the service provider — these assets are retained by the client. Some of these services are delivered without initial customer contact, such as those related to the proactive monitoring of servers. Others require initial customer contact, such as those related to help desk calls about desktop services.

In either situation, the help desk may become the logical repository for first-, second- and third-level support personnel, as well as the single point of data repository for all support activities. Overall, remote IT infrastructure services can be segmented into remote management services and remote support services. These services are often labor-intensive, opening them up to labor arbitrage options delivered from shared-service arrangements or from offshore locations, and they are delivered on a standardized basis to all clients.

Remote Management Services

Remote management services concentrate on the automation of tasks. Remote IT infrastructure services are about reducing the labor component — removing costs and risks. They include the following functions:

- Proactive (threshold-based) performance monitoring.

- Event correlation.
- Automated root cause analysis and remediation.
- Patching and software upgrades and updates.
- Configuration item administration (including "soft" moves, adds and changes).
- We see the following types of service under remote management services:
- Data center computer hardware (mainframes, Unix, Wintel and Linux platforms).
- Networks (WAN and/or LAN).
- Security.
- Desktops/laptops and related peripherals.
- E-mail.
- Application support (specialized end-to-end system support).
- Storage management.
- IT asset management.
- Output (print) management.

Remote Support Services

These include service requests and problem resolution support services triggered by clients; also proactive services from service providers, such as health checks and proactive patching. Remote support services include those for:

- Database administration.
- Enterprise resource planning operations (such as support for SAP Basis).
- Unix technical support.
- Wintel technical support.
- Mainframe technical support.
- Linux support.
- Website support.
- Middleware support.

Overall, remote IT infrastructure services may include system operation or support, administration, security, performance monitoring, technical diagnostics/troubleshooting, configuration management, system repair management and generation of management reports. Also included are services to aid business continuity processes and the management of technology assets. Outsourced infrastructure services sometimes include the transfer of ownership of technology or personnel to an external service provider. However, with remote IT infrastructure services, this is less common, especially when aspects of the work are taken to a low-cost location.

To lower costs, providers often use a GDM for these services, in combination with an optimized combination of processes, end-to-end methodologies and quality procedures (with qualified skills and resources available internally or externally in requisite quantities on a global basis). This enables organizations to maximize the quality of their solutions, and minimize the overall cost and delivery time of their IT services. For infrastructure support services, the GDM needs to incorporate IT Infrastructure Library (ITIL) practices. Most clients are looking for ITIL v.3 service support and delivery components, as opposed to the Capability Maturity Model Integration (CMMI) support that would apply to application services.

Position and Adoption Speed Justification: The global financial crisis meant that many IT operations, both insourced and outsourced, had to cut staff and/or were unable to recruit new staff. Even though the economy has improved in some regions, many businesses are still not hiring. Generally the IT workload has remained at the same level, so the surviving IT staff have to do more work.

Interest in stand-alone remote IT infrastructure services continues to grow from clients looking to reduce their IT budgets or supplement their staff. Hence, the use of remote infrastructure management services in a shared-service model or from offshore locations has a lot of appeal to clients, even those who are insourced and seeking 24/7 support to reduce out-of-hours support costs. It is also noteworthy that many midsize and some large companies (those with revenues ranging from \$500 million to \$2 billion) that may be wary of the concept of IT outsourcing are nevertheless open to partial delivery of remote infrastructure services in order to supplement their staff while retaining control over certain infrastructure services.

Gartner has been tracking emerging delivery models for some time, and among the most popular are remote infrastructure support services. During the economic downturn, large multinational providers offered remote monitoring and support functions as services bundled with their existing deals for data center and network services. These bundles were primarily positioned as alternatives to lower prices for clients, while also being designed to reduce their own costs and improve their profits.

Many IT outsourcing deals were also renegotiated in 2009 in order to cut costs, by introducing remote infrastructure management services — 10 (45%) of the 22 renegotiation deals we reviewed included such services. It is important to note that the service providers need to manage this transition carefully; otherwise they risk service delivery degradation and decreased client satisfaction. This means that providers should warrant proper knowledge transfer and retention, based on clear statements of work with formalized service levels, supported by integrated and well-documented global delivery processes.

By contrast, remote IT infrastructure providers — often pure-play offshore service providers — continue to view remote infrastructure services as a growth-market opportunity. They often offer a stand-alone service that a client can purchase, particularly as this means they don't have to make a large investment in acquiring the client's infrastructure assets, as was often the case in traditional IT outsourcing deals. During 2009 we saw a number of deals where pure-play providers integrated these remote services into their application management services for enterprise applications which they had previously implemented for clients.

Owing to the economic downturn, the remote IT infrastructure service revenue generated by India-headquartered providers selling to Western Europe and North America was higher than their revenue from many other services. Offshore pure-play providers continue to grow: they have reported annualized revenue growth rates of 20% to 55% for infrastructure support services. Despite this growth we still see slow penetration, as clients are not quick to fully adopt remote services and often request a scaled-down pilot. This slowness in penetration has led us to reduce the maturity from "early mainstream" to "adolescent."

The two categories of vendor — pure-play and traditional — bring different strengths to this market, which is still maturing, and some leaders are emerging. Traditional providers continue to pursue a global "follow the sun" approach to support. For pure-play providers, India remains the dominant offshore destination from which to deliver these services, but we continue to see interest in other countries, too, including Argentina, Brazil, Hungary, Malaysia, Mexico, the Philippines, Poland and Romania. Companies in Western Europe have a growing interest in nearshore and offshore services. Eastern Europe remains the preferred delivery location, but North African countries (such as Morocco), Egypt and South Africa are gaining interest.

User Advice: Follow some simple guidelines when choosing between global remote infrastructure service providers:

- Review their track records and experience to find out where they have delivered these services from and how successful they have been.
- Visit delivery sites to validate their remote capabilities.
- Check their knowledge about the technologies you use, and whether they truly have the capabilities and the scalability of staff resources to meet your demands.
- Ensure they can meet your security, privacy and compliance requirements.
- Ensure they have sound service management methodologies, which are aligned with, or based on, industry best-practice frameworks and standards such as ITIL, Six Sigma and ISO 20000.
- Validate their experience and investment in tooling, automation and continuous improvement of, and innovation in, remote services in order to extend the range and benefits of these services.
- Based on past incidents, validate their financial stability and look for audited reporting.
- Ensure support services can be provided in languages that suit your multicountry support arrangements.
- Ensure they take a long-term view in their remote services catalog and have a services road map for the full term of the contract.
- Finally, examine their business continuity and disaster recovery plans, and ensure they are capable of handling any potential problems.

Business Impact: Given the current economic conditions, buyers of IT services continue to focus on cost optimization and productivity improvements when making sourcing decisions. Offshore services options can be a key mechanism by which both insourced and outsourced clients can take advantage of the labor arbitrage of lower-cost locations. So, in these tough economic times, more clients will consider remote IT infrastructure services as a viable alternative to labor-intensive services, and they will use them to supplement the on-site resources required in order to remain competitive.

Use of remote IT infrastructure services also allows a business to access full- and part-time technical expertise that it needs but may not have the budget to hire. If clients are unable to achieve a consistent quality of service with their current model, then supplementing it with skilled technical resources and adding operational monitoring capabilities can often improve the situation. It can also enable them to cover over-night IT operations shifts and avoid call-out costs for vendors or internal staff.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Accenture; ACS; Atos Origin; Cognizant; CompuCom; CSC; Dell; Fujitsu; Genpact; Getronics; HCL Technologies; HP Services; IBM Global Technology Services; Infosys Technologies; Mahindra Satyam; Microland; NIIT Technologies; Patni Computer Systems; SAIC; Sify Technologies; T-Systems; Tata Consultancy Services; Unisys; Wipro Technologies

Recommended Reading:

"Emerging Technology Analysis: Remote IT Infrastructure Services, IT Outsourcing"

"Exploit Cost and Performance Opportunities in the Rapidly Evolving European Help Desk/Desktop Outsourcing Market"

"Buy Industrialized Services to Quickly Reduce Outsourcing Costs and Risks"

"Key Strategies to Avoid the Pitfalls of Remote Infrastructure Management Contract"

"Offshore Outsourcing Extends to Remote Infrastructure Services"

"Offshore Infrastructure: Where Does It Work?"

"Use Five Steps to Make Data Center Outsourcing Decisions"

"MarketScope for Remote Monitor Services (Global)"

"MarketScope for Remote Support Services (Global)"

"Key Strategies to Avoid the Pitfalls of Remote Infrastructure Management Contracts"

"An Overview of the Remote Infrastructure Services Market"

"Cost Cutting in 2008 Using Remote Infrastructure Service Providers"

"How to Ensure Infrastructure Providers Can Deliver Service Excellence"

"Report Highlight for User Survey Analysis: Influence of ITIL and ISO 20000 on Selection of Providers for Data Center Outsourcing and Hosting"

"How to Ensure Infrastructure Providers Can Deliver Service Excellence"

Sliding Into the Trough

Storage Outsourcing

Analysis By: Adam Couture

Definition: Data center storage outsourcing transfers all, or part, of the day-to-day management responsibility for a customer's storage environment (including storage area networks, network-attached storage and tape libraries) and, in some cases, the ownership of the technology or personnel assets to an outside vendor. These services may include system operation or support, capacity planning, asset management, availability management, performance management, administration, security, remote monitoring, technical diagnostics/troubleshooting, configuration management, system repair management and generation of management reports. Storage-on-demand services (the storage utility) and backup and recovery services also fall into this

category. For 2010, cloud storage as a low-cost alternative storage tier is included in the definition.

Position and Adoption Speed Justification: Storage outsourcing is an ever-evolving component of infrastructure outsourcing in general. It is not a technology, but rather a manifestation of storage technologies, initiatives and processes. Although full service outsourcers generally don't adopt leading-edge technologies immediately, they will continue to apply and implement new storage technologies as they develop and evolve. As a consequence, storage outsourcing will never actually reach full maturity. However, full-service outsourcers tend to be fairly conservative in adopting new technologies, including storage, so the technologies they employ will generally be in the post-trough stage of the Gartner storage Hype Cycle (see "Hype Cycle for Storage Technologies, 2010."). The exception in 2010 is cloud storage IaaS, which is at the pre-Peak of Inflated Expectations. Service providers have been strong adopters of use-based pricing and most now offer utility pricing on multiple storage tiers. As defined by Gartner, storage IaaS now includes cloud storage, which was added to the definition of outsourcing storage services for the first time this year. These services are very immature, hovering at the Peak of Inflated Expectations. As a consequence, for 2010 the position of storage services on the Hype Cycle was moved from post-trough to post-peak.

Because consistency, repeatability and manageability are key to full-service storage outsourcers, they have tended to apply the Information Technology Infrastructure Library and similar frameworks to manage their storage environments.

User Advice: Storage outsourcing doesn't necessarily have to be associated with other aspects of IT infrastructure outsourcing, although it usually is. Some companies turn over only their storage environments to an ESP, choosing to manage networks, mainframes and servers themselves. This strategy can increase the number of bidders, because storage OEMs, and even value-added resellers (VARs), can compete for the business, along with full-service ESPs. Companies considering this approach are cautioned to pay close attention to governance and SLAs and to the impact of the storage infrastructure on servers, mainframes, networks and applications. For example, a 99.99% storage availability SLA doesn't mean that applications will have similar availability.

Outsourcing storage usually means relinquishing future technology decisions to the service provider. To control costs and increase manageability, outsourcers standardize on defined tiers of storage and specific storage OEMs. Although they are more than willing to initially acquire and manage whatever storage technology a new client has in place, their objectives will be to migrate to their own defined storage tiers. Customers deviating from those defined tiers can expect to pay a premium for the privilege. Users must establish clear storage infrastructure objectives to determine which offerings best suit those requirements.

Full-service data center outsourcing companies have traditionally been slow to adopt new technologies, generally opting to wait until they are proven and moderately mature before adopting them for mainstream customer implementations. This isn't to say that service providers aren't constantly evaluating new technologies and methodologies and implementing them as appropriate. For example, Gartner anticipates that most infrastructure outsourcing companies will be forced to offer some form of low-cost cloud storage to remain competitive. Ask your infrastructure outsourcer where cloud storage is on its service road map.

Customers seeking to lower their storage costs through outsourcing must understand that service providers generally strive for 30 or more margin points, so meaningful savings may be slim or unattainable. Customers seeking to avail the cost advantages of cloud storage must wait for outsourcer offerings to emerge or convince their outsourcers to partner with cloud storage providers.

Business Impact: The benefits of storage outsourcing will vary among companies. Well-run IT organizations with dedicated storage teams that have implemented storage resource management tools and have achieved high utilization rates are unlikely to benefit from turning their storage environments over to an ESP. Conversely, if storage management isn't a core competency, outsourcing can lower storage costs, enhance performance, and increase availability and recoverability.

Additionally, service providers can frequently help customers with the storage aspects of compliance requirements. While on-premises storage in outsourcing engagements is usually dedicated, users in managed hosting environments access primarily shared storage. This can provide benefits to customers with a great deal of seasonality or other peak-period demand who can provision up and down as needed, therefore avoiding the expense of provisioning and paying for more storage than they require for most of the year. Small users in these environments often are able to access a higher tier of storage infrastructure than they could otherwise afford if they weren't sharing infrastructure with other users.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: CSC; Dell; EMC; HP Enterprise Services; IBM Global Services; Rackspace; Savvis; Xerox

Recommended Reading:

"Hype Cycle for Storage Hardware Technologies, 2009"

"The Storage Utility: From Outsourcing to the Cloud"

"Market Trends: Storage Professional Services, North America, 2008"

Application Testing Services

Analysis By: Gilbert van der Heiden; Frances Karamouzis

Definition: "Testing services" is a comprehensive term used to capture all types of validation, verification and testing services for the purposes of quality control and quality assurance. Verification assesses the technical behavior and validation assesses the functional behavior of tested elements. Quality assurance is the proactive and quality control the reactive behavior to find and remove defects. For a detailed description of testing services see "Testing Services: Guidelines for Understanding and Using Testing Service Key Terms and Definitions." This is distinct from application testing tools. Here we provide an overview of the definition of application testing services.

Application testing services, which have always been an integral part of the application development (AD) life cycle (generally split between functional testing and non-functional testing [for example, performance, stress, load]), have now reached a juncture where the services have been carved out as a separate and distinct competency area, often supported by a distinct development methodology. Testing services may be performed manually, with automation tools or with a combination of both approaches, and may be carried out by internal IT resources or external service providers. Application testing applies to custom or packaged applications, as well as single applications or many applications.

When externally sourced, application testing services may be purchased as staff augmentation, discrete consulting or development project work and longer-term outsourcing engagements.

Externally sourced services can address single application life cycle components, full application life cycles, or end-to-end process support, often provided through global delivery models. Other forms of complementary services being offered in the market also include setting up shared-service centers or centers of excellence (COEs) that are focused on testing.

There is an expansive array of specific testing procedures in the AD life cycle. A few of the more common ones include unit testing, integration testing, performance/stress testing, regression testing, security testing, user acceptance testing, backward compatibility testing, usability testing and compliance (regulatory) testing. Providers may have specialties in one or more of these areas — for example; compliance testing will require specific industry knowledge/expertise.

Position and Adoption Speed Justification: Last year (2009) was a year of continued interest, analysis and piloting of the use of testing services. Despite the economic downturn, unlike many other categories of IT services, interest in testing services did not suffer a sharp decline. There was actually a steady but measured increase. Gartner believes that this is due to the following main reasons:

- Testing is a relatively low-risk process to outsource (not a core competency for most firms and not a differentiator); it has a proclivity for automation; and it has some of the largest concentrations of labor hours in the application life cycle.
- Decreased business "lead times" are driving a strong focus on shrinking lead times for new developments, from design to production, inclusive of applications. With 25% (best case) to 50% (worst case) of the AD life cycle in testing, shrinking that is becoming an obvious "low-hanging fruit" for IT and the business (Gartner's IT Key Metrics indicate that development and unit testing, system testing, defect removal and quality management comprise around 50% of AD. This excludes the validation effort of the requirements and design phases). However, most business organizations still tend to view testing as a technology service which does not add direct value to the business (during a poll at an April 2010 Quality Assurance event only 40% recognized the business value of testing).
- There is a higher level of impatience in the business with the results of poor application quality (production roll-back leading to revenue loss/opportunity costs and so on). This is driving internal IT to consolidate testing and/or engage a testing services provider, because they don't have the skills internally (or they'd have done a better job already). Nowadays, this lack of internal skills is recognized earlier, leading to more strategic decisions regarding outsourcing testing support earlier in the application life cycle, besides just test execution. Services include process and technical testing architecture consulting and support in defining the testing strategy and test process.
- One reaction to the financial crisis and subsequent recession has been to introduce more regulation of industries, and this spike in the need for compliance will boost demand for testing services, especially in the financial services industry.
- The increasingly complex application landscapes of legacy, on-premises client/server, Web, mobile and software as a service solutions fuel the need for testing and testing services, to warrant cross-supply-chain integration and data integrity, to safeguard and manage critical business knowledge and ensure a high level of agility in environments of multiple integrated applications that drive business performance.
- Following the maturing demand and delivery of cloud (see "Hype Cycle for Cloud Computing, 2010") and utility services, end users have also recognized testing services as a means to address their security and compliance concerns around data integrity, data location, personal data protection and regulatory requirements.

- A derivative driver that indicates growing hype is the continuous influx of new providers, both pure-play and full service providers. Since our overview of 65 testing service providers in November 2008 (see "Market Overview of Application Testing-Service Providers" Gartner's current list of testing service providers exceeds 125 (and this not an exhaustive list). Many of these providers (estimated at over 70%) are offering both consulting and system integration and outsourcing services.

From the updated list of testing service providers, additional firms have grown their testing practices to exceed \$100 million. Many more have established an in-depth formalized methodology. However, the majority of new entrants in our list are small, focused service providers that have limited their services to one or two verticals (in 90% of them the focus is on banking, followed by manufacturing, telcos and product engineering; some are dedicated to healthcare or education), or the horizontal, which in all cases is ERP. In many cases, branding for testing services lacks a consistent message, especially when all service practices involved in testing have not been aligned internally.

Nonetheless, testing service providers state a clear increase in demand and a growing acceptance of more output-driven services beyond pure staff augmentation. In fact, in interactions with 30 service providers in 4Q09 and 1Q10, all providers stated that they move from staff augmentation to managed services between six to 24 months after initial contracting, where the duration is based on the end-user's maturity in outsourcing and managing external service providers (more mature end users move faster).

Given the pull and push from the demand and supply side, there is a continued high level of exploration of testing options, especially as organizations' awareness and understanding grow with regard to the relatively large impact of testing in AD. In so doing, clients find that well planned and executed testing can concurrently improve the AD process, achieve higher-quality deliverables, and lower the developmental, reputational and operational risk.

Testing services can even improve the capability within the business; for example, using Six Sigma analysis to reduce requirements leakage at the requirements definition phase (which is a huge source of downstream "bugs"). Thus, the discipline of testing has gained a great deal of traction.

User Advice: As with many emerging service categories, service providers vary in their level of maturity, growth and investment. While the market is maturing, service providers often accept work, especially from an established client, in virtually any way the client wants to scope and pay for it. This opportunistic approach perpetuates an environment that lacks standards for scope of work, service levels, price, contractual terms and other attributes that are consistent with an immature and hyped IT service offering. And this is especially important as organizations need to validate the existence and quality of testing frameworks, practices, policies and procedures. What has to be added here, in all fairness, is that the immaturity and opportunism also exists on the end-user side.

Even well established testing service providers start without proper statement of work and service levels because the client lacks the internal capabilities to define and manage the requirements. The difference in moving from staff augmentation to managed services can be mostly attributed to that factor.

Therefore, Gartner's advice to clients seeking testing services has not changed, as it addresses both the internal and external responsibilities:

- First determine why the organization is looking externally. Is it to improve the testing approach and methodology of the enterprise application development? Is it to execute

required testing services within limited budget boundaries, or is it a combination of both? Answering such questions about why external sourcing is being evaluated is critical.

- If isolating testing functions makes sense as part of your sourcing strategy, then ensure that you have a well defined scope, clear performance requirements, measurable success criteria, and good relationships and interactions with all the application and user groups that will be integral to the testing process.
- As a discrete function, the organization must have the resources, methodologies and practices in place to provide output to the testing provider, and then to receive input when the function is completed. If an organization intending to outsource already has issues with basic processes, such as the defect find/verified/fixed/validated cycle, then these will only become more challenged.
- When evaluating providers, ensure that you give proper weighting to the level of maturity, automation and process standardization that the provider has achieved in testing services. Do not forget to validate the industry-specific knowledge, templates, use and test cases and tools the provider can deploy.
- Consider providers with dedicated business units for testing, as well as consistent revenue growth for that business area and in your industry.
- If the business unit is relatively new, then require the provider to demonstrate its commitment to this market, and to the size and stability of its testing staff.
- Check references carefully and match your specific requirements to similar engagements. Also, some testing providers are dedicated, or have dedicated units, for supporting independent software vendors' software development efforts.
- View testing as part of the AD life cycle, even if it is externally sourced as a discrete function. Ensure alignment between the AD methodology and the testing methodology. Build knowledge transfer into the outsourcing action plan. The selected provider will need to learn your methodology, and vice versa.
- Organizations that want to leverage a provider's intellectual property must pay special attention to knowledge transfer and training during the transition process.
- Organizations need to understand that they must take on the (often complex) role of service integration to "connect" the AD side with the testing side. If the development is also by a (different) service provider, the complexity increases. Plan for this in the governance process.

Application testing services may be purchased in various ways and organizations must be clear about their objectives and the value propositions of each option:

- Staff augmentation is used to address resource constraints.
- Organizations are responsible for directing the resources and ensuring the outcomes.

Discrete project work is typically used in two scenarios:

- For a specific AD effort that requires independent testing.
- As a consulting-led project to evaluate the efficacy of changing the way that application testing is performed.

Often, consulting-led projects are described as pilot programs, and will lead to more extensive project work or even long-term outsourcing contracts.

Outsourcing testing services means turning over management responsibility to a provider that brings testing processes to meet client-specified performance-based outcomes. Testing services purchased through an outsourcing contract indicate the organization's commitment to leveraging the market's expertise and assigning delivery responsibilities to an external source.

In some cases, organizations have moved to a COE model for testing services — as an internal shared-service center, a captive center or an externally provided and supported competency center. The COE is used as an organizational "tool" to focus resources and assets on the testing discipline, develop best working practices, industrialize and continually optimize these practices, and use them throughout the organization. The COE model is used by many external providers as a discrete service offering, sometimes in combination with internal resources. In limited cases, the COE is established as a discrete project by the provider and then turned over to the organization.

Independent of the sourcing choice, organizations always need to drive their decision based on the required outcome of the services. And that is where Gartner's 2010 CIO survey identified the need to ensure that IT services do not only add business value and clearly define the business benefits they intend to realize. The survey identified that IT services also need to measure if that value, those business benefits, are actually realized. And that is what testing should focus on: measuring the business benefits of the applications that are developed and tested.

Business Impact: Many organizations don't know how much they're spending on application testing, nor do they understand the true cost of inadequate testing processes that result in defective software. As indicated, as a rule of thumb, testing effort moves between 25% (best case) and 50% (worst case), and between 25% and 33% on average.

Furthermore, most organizations don't have discretionary budgets to develop world-class testing services. The lack of testing standards and consistency often leads to business disruptions, which can be costly. Most organizations don't use a process that links testing failures to business disruptions on a cost basis, so the financial impact generally isn't known. Nor do they know the business value that the applications provide, or test for it. Application testing is a case in which using an external provider can be effective, but sometimes difficult to demonstrate clearly.

However, there is growing recognition of the importance of a well refined software engineering process at the enterprise level that incorporates testing in the development cycle. When application testing services are externally sourced as part of a broader sourcing strategy, the business effects can be substantial. They include:

- Cost savings in the discrete AD life cycle and for a longer term, using better software quality overall.
- Lower ongoing costs for maintaining applications.
- Improved performance of applications as soon as they are in production.
- Better and more consistent quality and the resulting confidence of business users with their IT support.
- Decreased time to implement new applications or functionalities.
- Increased rigor and productivity by resources throughout the development process.
- Increased rigor in determining quality of requirements and benefits realized.

- Increased reflection of business value realized through testing.

When application testing services are approached tactically without clear objectives and plans, the business effects aren't as significant as those listed above, and often can be marginal. When application testing services are only approached from a cost-efficiency focus, the same applies.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: Accenture; Allied Testing; AppLabs; Capgemini; Cognizant; CPM Braxis; Fujitsu; Galmont Consulting; Hexaware; HP; IBM; Infosys Technologies; Intelligroup; ITC Infotech; Logica; LogiGear; MindTree; Persistent Systems; Softek; Software Quality Associates; SQS; Syntel; Tata Consultancy Services; Wipro

Recommended Reading:

"Testing Services: Guidelines for Understanding and Using Testing Service Key Terms and Definitions"

"Standardize Definitions and Expectations for Testing Activities"

"The Role of Testing in ERP/Business Application Support"

"What Is the Role of Quality Assurance in a SaaS Environment?"

"Testing Times for HR Systems and EU Data Protection Law"

Globally Delivered Help Desk Outsourcing

Analysis By: Gianluca Tramacere; Richard Matlus; Frank Ridder

Definition: On the surface, globally delivered help desk outsourcing has the same structure as a domestic help desk service: a multiyear or annuity contract, or a relationship involving the day-to-day management responsibility of the help desk. However, global help desk outsourcing services include any combination, or all, of the product support and professional services that relate to the ongoing management of Level 0 (self-help), Level 1 and Level 2 help desk resources, whether "nearshore" (in an adjacent or nearby country) or offshore. Global help desk outsourcers may provide services on a stand-alone basis as a selective outsourcing engagement, and the primary driver is to reduce costs using lower-paid resources from developing countries. This is because, despite the influence of automation, self-help tools and virtualization, the IT help desk remains a labor-intensive environment .

Gartner defines globally delivered help desk services as those delivered by a service provider to a client in a given domestic market, primarily from one or more nearshore/offshore locations, for the purposes of cost arbitrage, productivity, skills access and flexibility. The term "offshore" subsumes "nearshore" as defined in Gartner's formal definition of GDM. The GDM is the optimum combination of processes, end-to-end methodologies and quality procedures that enables organizations to maximize the quality of their solutions, while minimizing the overall cost and delivery time of their IT services. (The combined processes refer to high-quality skills and resources available internally or externally in requisite quantities on a global basis.) The GDM is often used to refer to the delivery of offshore, nearshore, and onshore and domestic services.

Position and Adoption Speed Justification: Global delivery continues to have a major impact on the help desk outsourcing service delivery model. Service providers continue to migrate legacy

dedicated sites or deals managed at customer sites to their help desks based in nearshore and offshore locations, which are being equipped to work as hubs within a GDM and often a single telephony infrastructure to enhance workload balance and flexibility in delivery. Because the help desk remains a labor-intensive function, providers increasingly aim at leveraging help desk hubs in low-cost locations to achieve and deliver cost savings.

In the last 12 months, due to renewed focus on cost cutting generated by the economic recession, there has been an increased focus from service providers in terms of leveraging global delivery capabilities. In a stagnant market, this is seen as a key requirement to protect profitability while offering clients cost-benefits. At the same time, especially during the economic crisis in 2009, many organizations looked into increasing the offshore/onshore ration within their IT help desks.

Help desk agents, however, are not the only capabilities present in these hubs — increasingly, providers are including remote infrastructure services (such as remote server monitoring or remote network management) to proactively improve IT performance while limiting the number of contacts hitting the help desk. As a consequence, there are other objectives in globally delivered help desk services beyond cost cutting. In fact, by creating a service delivery model centralized in regional hubs, providers aim to achieve a physical consolidation of remote infrastructure capabilities, the standardization of the services, relevant tools and the related processes, and the potential to offer 24/7 seamless IT support. Currently the ultimate objective, although often a work in progress for many providers, is to have a global delivery network of capabilities underpinned by homogeneous processes and methodologies that, regardless of the location used, guarantee a seamless experience for the end user.

Customers' willingness to transform existing deals (which are often regionally focused) into global ones, coupled with their willingness to spread risk, has driven the emergence of a high number of locations in each region from which multilingual help desk support can be delivered.

As we look at the complex Western European market, characterized by multiple languages and cultures, we see that while Eastern Europe remains the preferred region for outsourcing, other locations, such as countries in Africa (for example, Egypt and Morocco), are, thanks to their proficiency in languages such as French, increasingly considered as viable options. Other options include countries such as Spain, Portugal, Italy, Ireland and Scotland. They appear less attractive from a cost-saving point of view, but they rely on solid IT and non-IT infrastructure, cultural affinity, and language skills to compete in this market.

In terms of the U.S. market, a strong focus on cost cutting could drive an organization in the United States to consider India or countries in Latin America (Mexico or Argentina, for example) as viable locations for help desk delivery. However, if cost is just part of a wider set of criteria, options such as Canada or more-rural areas within the United States could also be positively evaluated, despite their limited cost-cutting potential. Some of the major drivers for such decisions continue to concern cultural affinity, risk mitigation, language richness, and the quality of IT and non-IT infrastructure.

Recently, we have seen some organizations transferring their help desks from India back to the United States, mostly because of issues concerning cultural affinity and language richness/accent neutralization, which negatively impacted service delivery. This is keeping the market penetration in the 5% to 20% range, despite its maturity rating of early mainstream. In a few emerging cases, the push toward lowering the service support cost (due to the 2009 economic crisis) has resulted in a reduction of the number of languages supported and therefore the number of help desk locations.

Compared with the past, the globally delivered help desk has affected a wider portion of deals across the various regions. Many clients, in fact, have accelerated their adoption of globally

delivered services to optimize costs. In doing so, they have found that their internal skills and the provider capabilities were not sufficient to guarantee a smooth transition without negatively affecting service delivery quality.

In Asia/Pacific, as expected, India, China, the Philippines and Malaysia currently play a leading role in terms of global delivery potential for help desk services. Other options exist in Asia/Pacific (New Zealand, for example), but they may have less-attractive cost reduction potential.

The importance of being able to rely on a truly integrated GDM (underpinned by homogeneous processes, methodologies and tools and supported by an extensive knowledge management system) is also because, in the near future, automation, virtualization and proactivity are likely to limit the cost attractiveness of global delivery in terms of labor arbitrage. In this phase of the help desk evolution, clients will aim at accessing the best skills in those locations that are designed to guarantee optimal efficiency and service delivery by offering help desk solutions that are characterized by a high level of automation and virtualization. In the future, an increased deployment of these factors, and in particular automation, and not labor arbitrage, will in fact deliver the desired cost and efficiency performance.

In the meantime, globally delivered help desk services have reached the midpoint of the Trough of Disillusionment as they continue to have mixed client satisfaction results and still have not completely matured to enter the Slope of Enlightenment. Traditional complaints refer to cost savings that did not reflect expectations and a poor percentage of first-call resolutions, especially if, driven by the need to reduce cost, the provider had accelerated moving its help desk services to a low-cost location. Other challenges affecting service delivery quality include:

- **Lack of knowledge transfer and management expertise** — Clients must encourage their service providers to do a better job of capturing the clients' environment and documenting processes to resolve clients' specific issues or problems. Service providers need to have a knowledge management system that is easily accessible by their agents and clients for Level 0 self-support (for example, an FAQ section and the ability to enter/trace calls online) .
- **Language richness** — A lack of language support or accents that are difficult to understand can also negatively influence the end user's opinion of the service delivered. Generally, accent neutralization rarely appears in the bidding process, but it becomes an issue as soon as end users become involved during service delivery.
- **Lack of homogeneous tools, methodologies or processes between different locations** — Providers face the complex and huge task of restructuring to create global delivery capabilities, IT Infrastructure Library alignment, and the development of global processes, tools and methodologies. These daunting tasks are a work in progress for all providers, and companies are feeling the pain, especially if the transition to global delivery is done in an aggressive time frame without the necessary due diligence. This task is made even more complex by those clients that enter an outsourcing deal with the aim of achieving the cost-benefits of a standardized help desk solution while striving to maintain their own exceptions in terms of tools or processes.
- **Challenges in understanding the culture of potential clients** — Some offshore-based organizations (especially in emerging locations) have not invested sufficiently in understanding the culture of the countries where their potential clients are located. This normally hinders the level of satisfaction of end users. As an example, many organizations in North America do not like the multiple questions at the start of a call and would prefer a more-informal process when calling Level 1 support. However, despite having won many deals, offshore service providers continue to have a very rigid process

to qualify the caller. This is one example of many instances of service providers failing to properly understand their clients' culture and preferred ways of doing business.

User Advice: A persistently challenging economic environment is driving many organizations to evaluate globally delivered help desk services to reduce costs. Because customers are likely to be operating under time pressure to deliver immediate cost and delivery benefits, we recommend the following as a way to successfully adopt globally delivered help desk services:

- Carefully evaluate the provider's experience and expertise (particularly the provider's skills, processes and project management competencies) in transition management, with a focus on knowledge transfer and retention. When possible, adopt a "pilot before scaling up" approach.
- Assess the maturity of globally delivered help desk services as an offering in your provider's portfolio, remembering that it is likely to vary depending on the locations that are in charge of delivering it (not all locations will be at the same level of maturity). When possible, test the real global nature of the provider's processes (including the ability to manage call routing and knowledge sharing).
- Review the service provider's procedures, training, knowledge management systems and contractual arrangements to make sure it has an incentive to improve first-call resolution. For the best results and the most-efficient outsourcing deal, ensure your internal procedures align with the service provider's. This may lead to changes in your internal culture and challenges to your user communities, such as demoralized or negative attitudes, that will need to be addressed. Check references, and ask about the service provider's results; if successful, what did the service provider do to make it successful? What challenges did the provider encounter? How did the provider overcome them?
- If your deal is global and requires the support of multiple locations and languages, carefully weigh the risks (such as decreased customer satisfaction and the lack of domain knowledge) and benefits (such as cost savings). A mature GDM may eliminate the issue of location differences, but the current early stage of global delivery evolution and the complexity of global multilingual operations require you to carefully consider plans for and the speed of deployment for global delivery locations.
- Although most providers currently report a significantly improved retention rate in nearshore/offshore help desk locations, the issue of readiness of new agents still creates dips in terms of help desk performance, with a negative impact on service delivery quality. Find out what approach the provider is using to recruit, train and retain staff in nearshore and offshore hubs. Some customers have negotiated service-level agreements with defined turnover rates and procedures for agent training, joined or parallel activity, and certification.
- Determine what approach is used by the service provider to handle the accents of its help desk agents. For example, does it provide dialect-neutralization training? Many service providers have their agents attend accent-neutralization training, which seems to improve the quality of the help desk agents who handle telephone calls. Also, as providers continue to invest to enhance the size and geographic reach of their multilingual centers, carefully monitor if, for example, the provider is focusing on multilingual richness (including the ability to correctly write in multiple languages). This is crucial because contact with the help desk is increasingly made through writing via e-mail or Web tools.

- Ensure that your focus on global delivery does not make you overlook the importance of standardizing service delivery, centralizing some functions, and introducing automation and self-help functionalities (such as password reset or Web portals with FAQs).

Business Impact: The global delivery of help desk services is generally driven by potential cost savings or by the need to expand in an affordable way to furnish end-user support on a 24/7 model. The key is that the quality of service must be sustained, or the negative impact will be quickly observed and may lead to re-sourcing to a domestic solution. Many IT organizations believe the real cause for end-user complaints about help desk agents with heavy accents is an indictment of outsourcing in general.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: Accenture; Atos Origin; Bull; C3i; Capgemini; CGI Group; Ciber; Cognizant Technology Solutions; CompuCom; Computacenter; CSC; Dell; Fujitsu Services; Genpact; Getronics; GlobalServe; HCL Technologies; Hexaware; HP Services; IBM Global Technology Services; Indra; Infosys Technologies; Lockheed Martin; Microland; MindTree; Mitrais; Northrop Grumman; OneNeck IT Services; Patni; Politec; SAIC; Siemens IT Solutions and Services (SIS); Softek; Spherion; Stefanini IT Solutions; T-Systems; Tata Consultancy Services; Tech Mahindra; Technisource; TechTeam Global; Telus; Unisys; Verizon Business; Wipro Technologies; Xerox

Recommended Reading

"Help Desk Outsourcing: Offshore Issues"

"Magic Quadrant for Help Desk Outsourcing, Western Europe"

"Magic Quadrant for Help Desk Outsourcing, North America"

"European IT Outsourcing Help Desk Languages vs. Countries' Locations"

"Globally Delivered Help Desk Outsourcing Services: Risks and Benefits for European Operations"

Communications Outsourcing

Analysis By: Eric Goodness

Definition: Communications outsourcing extends beyond typical managed network services contracts, which transfer daily operational tasks associated with carrier network services and related edge devices, including multi-carrier agency, to a third party.

Communications outsourcing contracts enable external service providers to assume full life cycle responsibility for corporate communications systems and the underlying network services. The scope of communications outsourcing deals may include the support and management of fixed, wireless and mobile technologies, premises-based telephony and unified communications, as well as UCaaS. The increased adoption of expense management services has also become the center point for these outsourcing deals and thus, Gartner sees a convergence of IT and business process outsourcing related to communications.

Increasingly, Gartner is seeing that large multinational corporations require an outsourcer to assume ownership of network assets and personnel — which is certainly a driver for UCaaS solutions. In communications outsourcing contracts, the user often maintains control of strategic

architectural planning, but the outsourcer maintains a significant role in terms of aligning plans and cost management related to the outsourcing contract. The outsourcer generally plans and integrates refreshment of architectural direction and premises infrastructure, such as communications hardware, applications and network services.

Position and Adoption Speed Justification: Communications outsourcing still lacks the maturity found in other IT outsourcing markets (for example, desktop, data center) in terms of vendor capabilities and end-user willingness to outsource all corporate communications systems. This is especially relevant, as Gartner is witnessing a massive turnover in market share from integrators and traditional outsourcers to network service providers (telecommunications carriers). Network service providers (NSPs) have proven capable, given their modest level of outsourcing experience.

Gartner's main concern remains that NSPs do not currently enjoy the depth of experience to outsource holistic communications systems on a global basis. Specifically, they lack organic logistics and support capabilities offered by traditional system integrators and IT outsourcing service providers and some manufacturers (for example, Avaya, Siemens Enterprise Communications and NEC). Additionally, NSPs are seen as maintaining highly fractured delivery partner "ecosystems," which have to provide modest expertise levels and introduce supply chain risk, related to field execution.

Gartner is tracking a significant growth in opportunities for formal and ad hoc communications outsourcing bids and tenders. There is evidence that the increased demand is challenging the market in terms of the lack of requisite resources to meet the burgeoning demand for companies to offload the management of corporate communications systems and services to third parties. The continuing lack of companies maintaining strong IT services and telecommunications capabilities is a continuing problem for very large companies with a complex multinational presence. To date, offshore resources have had minimal positive impact on the communications outsourcing market, as these companies simply provide remote operations center staff augmentation services and remote monitoring and management. This model does not address some of the on-site, resource-intensive requirements for complex "moves-adds-changes."

The market continues to be price driven and offers users value, based on legacy perspectives. NSPs represent superior network service expertise, while traditional outsourcers and integrators offer superior logistic and support capabilities from a regional and global perspective. What has become apparent is that IT managers view communications outsourcing as a clear imperative. They are being driven by corporate management to reduce costs or to address a lack of corporate investment in skilled personnel and maintain the level of communications systems and services necessary for their businesses.

User Advice: Communications outsourcing can benefit many enterprises and is something that all corporations should consider. The competitive marketplace will certainly provide cost advantages, but not to the level that Gartner sees expressed in many request for proposals — often requiring upward of 40% in cost reduction. Communications outsourcing does provide significant advantages in terms of day-to-day management of communications systems and services.

When selecting an outsourcing provider, pay particular attention to the portfolio of additional services over and above WAN management, the quality of the service-level agreements and the ability to illustrate and integrate the broader value of unified communications into the company. Enterprises also must retain sufficient and relevant staff to manage program management issues and the technical resources to ensure that network performance meets business needs.

Business Impact: Communications outsourcing applies to any type of communications and connectivity used by any type of company. Managing communications systems and services is

largely a day-to-day operation that is usually resource intensive. By outsourcing, the company can move into a strategic role of planning how the communications systems and connectivity will evolve, rather than focusing on its operation. Furthermore, communications technology is changing rapidly and by outsourcing the network, the company will remove its technology investment risk.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: Bell Canada; BT Global Services; CSC; Dimension Data; EDS; IBM; Insight Networking; Logicalis; Orange Business Services; Presidio; Verizon Business; Vodafone

IT Infrastructure Utility

Analysis By: Claudio Da Rold; Frank Ridder

Definition: An IT infrastructure utility (IU) is a shared IT infrastructure architecture provided through on-demand services. Pricing is based on service use and proven, ongoing reductions in the fixed baseline (or subscription fees) and unit costs. The IU is open, flexible, predesigned and standardized, as well as virtualized, highly automated, secure and reliable.

Position and Adoption Speed Justification: The industrialization of the IT services industry continues within a range of alternative delivery models. IUs are increasingly accepted on the market, and more organizations include them in their IT services value chain. Especially during tough economic times, organizations consider IUs as a fast way to achieve benefits. Almost half of client organizations use outsourced IU services in North America and 35% in Europe already use these services. Of these, more than 25% plan to implement IUs within 24 months (see "User Survey Analysis: IT Outsourcing Opportunities Arise From Crisis, North America, 2008-2009" and "User Survey Analysis: Usage Plans for SaaS Application Software, France, Germany and the U.K., 2009"). This confirms that IU has already crossed the Trough of Disillusionment, and started on the path toward maturity and broad adoption.

Despite the challenging economic environment of 2009, the industrialization of the IT services industry actually accelerated. The evolution from traditional outsourcing delivery models toward cloud computing is driving innovation at an increased pace and is leading to significant investments at different service layers. Many of these investments are being made in the infrastructure layer, as this is an area where technology is mature, sharing is possible, willingness to outsource is high and knowledge is widely available.

Most service providers have already incorporated or are currently adding IU solutions into their portfolios. They often start by delivering their traditional infrastructure services, in a usage-based model, before moving rapidly into standardization, virtualization, sharing and automation as they realize this as the only way to good economics. Most of the service providers position IU and cloud computing as two sequential or parallel steps toward industrialized, off-premises services (see "Comparing Cloud Computing and Infrastructure Utility," "Magic Quadrant for Web Hosting and Hosted Cloud System Infrastructure Services (On Demand)" and "Magic Quadrant for Data Center Outsourcing and Utility Services, Europe").

Seven attributes define an IU, creating unique value for organizations of all sizes (these are outlined in "The Seven Golden Rules for Industrialized IU Services"). IUs are outcome-focused, ready-to-use and charged on a usage basis. Enterprises can scale their IU use up or down. IUs are also highly virtualized and shared, automated, lean, and standardized.

The most basic IU style is utility hosting, which has evolved from traditional dedicated hosting. Providers added service elements, such as virtual servers and virtual storage, to traditional hosting to support flexible provisioning, which often still requires manual intervention to execute. Most vendors and traditional outsourcers have already added these virtualized utility services to their portfolios.

Especially during 2009, new players from the telecom space entered the market with offerings that add a computing part to the network. This is quite visible in the already mentioned European Magic Quadrant, where a quarter of the main players are telecommunication companies.

From a management content perspective, the most-developed IU offerings build on standard infrastructure blocks (such as computing, storage, networking) adding elements designed to support a specific application landscape, such as ERP, communication, collaboration or CRM. The client is still in full control of the customized applications, while the service provider controls and manages the operating platform up to a level underneath the logic of the application. The provider tailors the architecture/performance/price of the service to the application requirements — for example, billing on a per-user or per-SAP Application Performance Standard (SAPS) basis.

Amazon.com (EC2 and S3 offerings); smaller providers such as GoGrid, Joyent, OpSource and Softlayer; and virtual data center hosting companies deliver IU services that leverage a cloud computing approach. Virtual data center hosting companies enable the implementation of complex virtual architectures in their physical data centers. Traditional outsourcers and small startups, such as ThinkGrid, are also introducing virtualized desktop utility services into the market.

Pure public cloud solutions often do not give visibility to the structure, architecture, operations and security of the global data centers or computing environment, a fact that causes compliance issues for certain industries (such as banking, insurance and the public sector). IU solutions close the transparency gap and therefore enable regulated industries to leverage solutions based on the seven attributes as well.

Most infrastructure service providers have delivered some financial flexibility to their clients — even in the traditional dedicated environments. However, under the competitive pressure of virtualized and shared IU offerings, service providers must move ahead with real IT service industrialization to deliver standardized, virtualized and shared environments that also enable additional layers of automation, while increasing the level of security of their environment.

From a maturity perspective, we map the advancement of IU against our Infrastructure Utility Maturity Model (IUMM); see "Gartner Introduces the Infrastructure Utility Maturity Model." Leading IU providers are still delivering at Level 3 (virtualized) of the IUMM and are progressively implementing elements at Level 4, which is all about automation. What's stopping many service providers from running full speed into Level 4 is that an increased level of automation decreases the number of touchpoints with the client, something they currently rely on for upselling and relationship-improvement efforts.

Although some IUs, like IU for SAP, are quite mature, and see high double digit growth rates, more complex and complete IU architectures will emerge within leading IU providers. These architectures offer basic IU services (virtual server and virtual storage) that are modular. Providers can group and combine these services to support more complex client requirements, aligned to specific application landscape or more broad vertical or segment-specific requirements (see "Infrastructure Utility Services Offerings Still Fall Short of Increasing Demand in Banking Sector").

The contribution that IU solutions make to a client's ability to control and increase flexibility is the key factor accelerating these solutions in the market:

- **Price:** Providers can spread costs across multiple clients because of the high use of virtualization technologies, standardization, and their investment in technology and tools. Process standardization and the use of automation also help to reduce cost. There is limited costly customization, and pricing for IUs decreased by between 10% and 20% in 2009 — driven by recession and competition — which is a great efficiency gain.
- **Flexibility:** Companies that grow through acquisitions or shrink due to restructuring, and other firms with dynamic resource needs can benefit significantly from an IU solution. Scaling the service up or down is easy, because providers offer usage flexibility of 50% and more, and thus very low baselines, which helps reduce costs quickly (by reducing volume).
- **Quality:** Providers invest a lot of money and brain power in process excellence and further automation. Client organizations we had discussions with — including references and case studies — seldom complained about failing service-level agreements, large downtimes or escalations with their IU service providers. This, over time, will lead to trust and acceptance of industrialized solutions.

Traditional providers must accelerate their investment and further industrialize their IT infrastructure service delivery, because new and disruptive approaches — especially those based on cloud computing — and new providers will progressively threaten the status quo of every insourced or outsourced solution. In the next five years, IUs will drive consolidation, and large providers will end up winning the market share battle, growing organically or by acquisition.

Overall, the outsourced services that are delivered through an infrastructure utility approach and fulfill the seven traits described above have been grouped into a subset of the IT services marketplace, defined as infrastructure utility services (IUS). These services represent the provision of outsourced, industrialized, asset-based IT infrastructure managed services (below the business application functional layer). IUS are defined by service outcomes, technical options and interfaces, and are paid based on resource usage, allocation, or number of users served.

For this market, Gartner has created a formal market sizing and forecast (see "Forecast: Infrastructure Utility Services, Worldwide, 2009-2013"). The forecast shows that the IUS market was worth \$7,101 million in 2009. By 2013 it will grow to \$23,501 million, representing a compound annual growth rate (CAGR) of 34%. But this will represent only 11.8% of the combined infrastructure managed services market in 2013. This clearly underlines the huge potential impact associated with the development of IUS, both on traditional and cloud-based architectures.

User Advice: IU is a maturing alternative delivery and acquisition model for infrastructure management services.

All clients should:

- Gain an awareness and understanding of these offerings in order to leverage their value for their enterprise.
- Include IUs in the set of service options under evaluation as part of their sourcing strategy and enterprise architecture.
- Investigate critical areas, including pricing mechanisms and demand management, architectural specifications and limits, transition in and out, contract terms and conditions, security, compliance, auditing, and risk management.
- Use the Gartner IUMM as a road map to follow the evolution of infrastructure toward the real-time infrastructure concept. This evolution will affect most organizations, regardless

of their decision to transform and run their infrastructure internally (insourced delivery) or externally (outsourced delivery or IU).

Organizations delivering their IT infrastructure services in-house should:

Regularly check how IU offerings are advancing in the market. Increasingly, these offerings will become the external benchmark for price, efficiency and flexibility. Examples include an SAP production managed platform (excluding SAP licenses) at \$15 per user per month (PUPM) or a Microsoft Exchange IU service at \$5 PUPM. The entry level for IU for SAP has currently dropped below \$10 PUPM.

Organizations considering outsourcing deals or utility offerings should:

- Concentrate on pricing units and pricing schema — and on the related tools for service requests, metering, billing, and financial and service reporting — to understand the maturity of offerings. The degree of flexibility must align to client requirements and the maturity of the offerings.
- Request references from other clients using these offerings and pricing units, and exercise due diligence in actively checking those references.
- Ask the provider to carefully describe the processes, automation tools and service-level agreements underpinning service delivery quality and efficiency, because a focus on unit definition and pricing alone is insufficient to achieve the best value for money.
- Request that providers communicate their service/architecture road map to understand how their offerings evolve over time and to judge the potential for lock-in into their specific architecture.
- Understand how their sourcing life cycle (sourcing strategy, vendor selection, contracting and ongoing management) will change when embracing highly standardized solutions.
- Start piloting or using infrastructure utilities as part of their IT value chain.
- Request proof regarding statements of regulatory compliance and verification of security and location transparency of data stores.
- Verify the impact of software licensing models when moving from dedicated to shared IU-based hosting solutions.

Business Impact: IT IU can: optimize the cost-efficiency and service effectiveness of IT infrastructure; increase flexibility in response to business requirements; and deliver an open, predefined, automated platform for innovation. To benefit, clients must overcome significant cultural, financial and technical issues, such as standardization acceptance, independent software vendor pricing strategies, application portability, virtualization and policy-driven management on heterogeneous environments. The still uncertain economy and the further rise of cloud-enabled services solutions will accelerate the evolution toward industrialized IT services.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Amazon.com; Atos Origin; AT&T; BT Global Services; Capgemini; CSC; HCL Technologies; HP; IBM; Logica; Rackspace; Savvis; Siemens IT Solutions and Services; T-Systems; Terremark; Unisys

Recommended Reading:

"Forecast: Infrastructure Utility Services, Worldwide, 2009-2013"

"Magic Quadrant for Data Center Outsourcing and Utility Services, Europe"

"Magic Quadrant for Web Hosting and Hosted Cloud System Infrastructure Services (On Demand)"

"Infrastructure Utility Services: The Business Between Outsourcing and the Cloud"

"Infrastructure Utility for SAP: Comparing Five Leading Offering"

"Infrastructure Utility for SAP: Comparing Contract Terms and Service Levels"

"Keiper: Adopting an Infrastructure Utility for Flexibility and Efficiency"

"Case Study: Areva Gains IT Flexibility Through an Infrastructure Utility"

"Oxea Shows How Infrastructure Utility Can Deliver Speed and Efficiency"

"Case Study: How IT Utilities Support Rio Tinto's IT Dynamics and Company Moves"

"Case Study: Nampac Adopts the IBM Infrastructure Utility for SAP Applications"

"Comparing Cloud Computing and Infrastructure Utility"

"Q&A on IT Services Industrialization"

"Dataquest Insight: A Service Provider Road Map to the Cloud Infrastructure Transformation"

Security Outsourcing

Analysis By: Kelly Kavanagh; Joseph Feiman

Definition: Outsourcing certain security functions is not a new phenomenon but is gaining traction, especially via delivery models such as security as a service, and via cloud-computing technologies and services. Outsourcing security spans multiple delivery models:

- **Security as a service:** Security controls are delivered by a security service provider via external, multitenanted services to an enterprise.
- **Network-based security:** Security controls (that is, "filtered bits") are delivered as a part of the Internet access service and generally not separable from the bandwidth provider.
- **Managed security service:** Security controls are hosted by the enterprise or hosted by the managed security service provider (MSSP) — but managed and monitored by MSSP personnel at a remote security operations center.
- **External hosting:** Security controls are managed by the enterprise, but service is physically located at an external hosting provider.

- **Integrated security controls with outsourcing:** Security controls are negotiated and monitored as part of the master service agreement (MSA) and SLAs of the outsourced deal — application development, application and/or IT infrastructure are outsourced.

Security outsourcing spans a diverse set of security functions and delivery models. Mature examples include the outsourcing of monitoring and management of firewalls or intrusion detection/prevention systems offered through managed security service providers. Security as a service is also growing. Security-as-a-service offerings include:

- E-mail and secure Web gateway scanning.
- Application security testing.
- Vulnerability assessment.
- Identity management.
- Client endpoint security management (typically as part of a broader IT outsourcing initiative, such as desktop management).

Gartner continues to track more service providers as they introduce service offerings for SIEM and log management related to meeting compliance requirements. Where organizations outsource all or significant portions of their IT, application development and/or business-processing functions, they also outsource much of security operations. In this instance, companies are faced with the significant challenges of maintaining, understanding and reporting on their security and compliance posture. Strong due diligence and assessment of providers, backed up by contractual language and SLAs, are paramount.

Position and Adoption Speed Justification: Outsourcing of security functions will grow, especially given the attention and hype of cloud-computing-based services. Some organizations with significant requirements for customization and control over the environment will initially choose traditional hosted or managed models rather than true security as a service or those that use full cloud-computing models. Early security-as-a-service offerings lack flexibility and functionality. The security outsourcing market spans multiple functional areas, and the providers include:

- Traditional network service providers such as telecommunications companies
- Large system integrators
- IT outsourcing service providers to small, focused security vendors

Threat- and vulnerability-focused markets, in which access to continual updates and expertise is paramount, are ripe security-as-a-service targets and are receiving increased attention by both providers and enterprises.

The markets for offerings such as e-mail security, Web security scanning, application security scanning and vulnerability assessment are still dominated by best-of-breed providers. E-mail security as a service continues to be the most mature and dominant security-as-a-service offering. Newer, and fast-growing, security-as-a-service markets include secure Web gateway, application security scanning and vulnerability assessment. SIEM, including log management, and identity and access management security-as-a-service adoption, is still embryonic but growing rapidly.

Software, appliance and services companies have announced various security-as-a-service and cloud security initiatives. However, many are still fledgling, and offering true security as a service will create channel and business conflicts for many.

This profile comprises a variety of security markets such as identity and access management data security, application security, and network security, etc, each consisting of multiple technology segments (for example, application security markets consist of static and dynamic application security testing, software composition analysis, etc.). They all have their own adoption rate and time to plateau. In this profile that comprises all markets and segments, we applied an early mainstream maturity level, as it defines time to plateau as "less than 2 years." This is applicable to many markets and segments, yet we balance it with an adoption rate of close to 20% of the target audience.

User Advice: Due diligence of any provider offering services — including security and nonsecurity functions — must include understanding the provider's security procedures and operations, and appropriate contractual protections and SLAs for monitoring vendor activity and access to enterprise data. Use security-related expertise as a criterion when assessing vendors.

Companies that decide to extensively outsource will often require further (and perhaps unanticipated) investment by the company in security management and vulnerability assessment tools and services to ensure that providers are meeting security requirements.

Not all security technologies are equally well suited for delivery as cloud-based services. The most appropriate are those that can be easily automated, require little customization and are noninvasive — that is, make no or few changes to the application's code and data. Enterprises should also understand that different delivery models (for example, managed security service, network-based or cloud), as well as different types of services (for example, application security testing or SIEM), differ in maturity as service-based functions.

Enterprises that employ a blend of security outsourcing and product-based solutions to address specific security functions must plan for additional effort to establish unified management, monitoring and reporting across differing delivery modes.

Many companies have immature security-related procurement and assessment processes when outsourcing IT operations and application development. Companies should ensure that security testing is included within any contract for application development, and application security testing should optimally be conducted by a third party before it is accepted by the customer.

Business Impact: The use of outsourced security services, if approached and managed appropriately by the enterprise, can be effective in improving the enterprise's security posture and reducing capital expenditure and staffing costs. However, outsourcing security does not transfer liability, or replace responsibility, for security from the enterprise.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: AT&T; Cenxic; Google; IBM; Identropy; McAfee; Microsoft; Mimecast; Ping Identity; Prolexic Technologies; Qualys; SecureWorks; Solutionary; Symantec; Symplified; Trustwave; Veracode; Verizon Business; WhiteHat Security; Zscaler

Recommended Reading:

"Toolkit: Application Security Testing Checklist for Outsourced Application Development and Maintenance"

Climbing the Slope

Managed Print Services

Analysis By: Cecile Drew

Definition: Managed print services (MPS) is a Gartner generic term for services offered by an external provider to optimize or manage a company's document output to obtain certain objectives, such as driving down costs, improving efficiency and productivity, and keeping information secure. MPS is first and foremost a transformational service resulting in a well-managed printer fleet. This usually means transforming the printer fleet to a well-managed state (i.e., optimizing it) and then helping the customer keep it there.

Under MPS, a service provider takes primary responsibility for meeting the customer's office printing needs, including the printing equipment, the supplies, the service and overall management of the printer fleet. The main components provided are a needs assessment, selective or general replacement of hardware, and the service and supplies needed to operate the new and/or existing hardware. The provider also tracks how the printer fleet is being used, any problems and user satisfaction. The MPS provider analyzes the information gathered in the course of tracking and makes (or recommends to the customer) the adjustments needed to ensure fleet efficiency and to meet changing user needs. Generally, the external service provider either owns the hardware or leases it from a financing company in its customer's name. The customer usually pays a monthly or quarterly fee, based on cost per page, which is agreed on when setting up the contract.

MPS may also be expanded to include staffed services, such as centralized reprographics departments and copy centers. It may also include document management services, such as developing custom applications for smart multifunction products (MFPs) that automate paper-intensive document workflow and route scanned pages to document management systems. It can also be extended to include the restructuring of document workflow.

There is a lot of confusion in the marketplace as to what MPS entails because it ranges in depth and scale and may be offered either through the reseller channel or directly by the manufacturer. MPS is typically aimed at large organizations through the provider's direct sales force. At the other end of the scale are positioned usage-based agreements, which offer a way to purchase print devices bundled with supplies, maintenance and support through an all-inclusive contract. However, unlike MPS, usage-based agreements typically cover only new printers and/or MFPs, and regular meetings/change management do not take place to help the customer keep its fleet optimized.

Position and Adoption Speed Justification: Behaviors have been shaped by the deep economic recession, and they will remain as the economic recovery takes place: Organizations will continue to place a strong emphasis on improving the life cycle of printing equipment through better analysis and monitoring of their printing fleets to make the most use of their existing print infrastructure. Many will embark on an assessment of their printing fleet, review their printing processes and plan to move to an optimized print environment. Organizations can accomplish this entirely on their own or with the help of an MPS provider that offers either the entire package or elements of it.

MPS is now available from almost every printer, copier and MFP manufacturer, and from most dealers. Once treated as a special request for certain large customers, MPS has become a tactic for salespeople to approach and engage new customers. IT providers, channels and outsourcers are all motivated to develop these services because of heavy competition in the print market and the need for all to add value to their hardware offerings, differentiate themselves beyond the hardware they sell and enhance margin opportunities. More and more organizations are enlarging

the scope of their MPS to improve their document-related processes by means of output management software, as well as better use of smart MFPs.

But despite its benefits, MPS does not work well in all organizations, especially in those with limited experience in managing their installed base and when a lack of aligned processes fails to yield the benefits of MPS. Choosing the right MPS vendor requires close attention by the organization. Buyers should expect a more-complex decision with more criteria than those required for simply choosing office printers and MFPs, and they will need to involve higher levels of management in the decision (see "Managed Print Services Vendor Selection Criteria").

The MPS market is still not fully developed, and offerings are at different levels of maturity. MPS is evolving from large organizations to midsize businesses in mature countries, such as France, Germany, the U.K. and the U.S., but it remains mostly in large organizations in emerging markets. Having said that, providers are gaining more traction at the national level across those emerging regions, particularly in the dynamic and rapidly advancing developing countries, such as Brazil, Mexico and China, where growth is coming from signing up national organizations. This is occurring as more providers develop their MPS capabilities and programs locally.

User Advice: Businesses should consider MPS if they want to:

- Manage office output but lack the skills, staff or time to do it on their own
- Free up resources for other purposes
- Improve user service levels and satisfaction
- Reduce assets and supporting overheads
- Optimize, transform and streamline their printer, copier and fax fleet for efficiency and cost savings
- Cut or control output costs

When considering MPS, businesses should:

- Review their buying habits. An organization must take its current and future size and output needs into consideration.
- Raise senior management's awareness of MPS. The potential investment and change associated with MPS are substantial, so businesses need senior management support to ensure commitment from the workforce and communication of the benefit.
- Develop a strategy that includes the measurement and tracking of output usage, as well as the regular review of output needs. In many outsourcing agreements, the promise of long-term cost reductions can be realized only when continuous process improvement is made a goal of the relationship.
- If the assessment is done externally, make sure all parties agree on the performance and cost metrics used, so they have a clear understanding of the work to be done. Analyze workflow and business processes. Digitizing the workflow and reviewing company business processes are the stages following an MPS contract.
- Realize that some channel MPS programs might not be suitable. Select a channel partner based on the service it can wrap around multibranded hardware solutions, rather than on the brands the company sells.

- Manage the transition. This is a critical part of the outsourcing relationship. Educate users about productivity features and cost savings to ensure a smooth transition and the efficiency of new machines deployed. Monitor how they are using these new machines.

Business Impact: Organizations are telling Gartner that, by managing their printer, copier and fax fleets, they saved up to 30% of their printing costs.

MPS can be a catalyst or critical event for long-overdue change and attention. It is changing the way organizations purchase and manage their printers, copiers and fax machines. By opting for MPS, businesses can generally benefit from simplified budgeting of output costs by consolidating contracts for hardware, supplies and maintenance. A consolidated contract also gives businesses greater visibility of spending.

MPS provides the flexibility to scale pages, print resources and cost to match business volume and staffing. It has the ability to shift costs to where they have a budget via chargeback and via turning capital expenditure into operating expenditure, or vice versa. And leaving the management, as well as the support tasks, to an MPS provider can allow an organization to concentrate on its core business, while freeing up IT staff for other purposes. Organizations benefit from the MPS provider's expertise in implementing appropriate products, usage policies and processes to meet their printing, copying and faxing needs.

Overall, organizations with 100 or more employees are good candidates for MPS, although very large organizations are the ones likely to gain more benefits because they probably have a widely dispersed printing environment with big potential for print optimization.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: Canon; CSC; Fuji Xerox; HP; Konica Minolta; Kyocera; Lanxum; Lexmark; Oce; Oki Printing Solutions; Pitney Bowes; Ricoh; Toshiba; Xerox

Recommended Reading:

"Magic Quadrant for Managed Print Services Worldwide"

"Managed Print Services Vendor Selection Criteria"

"Competitive Landscape: Managed Print Services, Worldwide"

Packaged Application Services

Analysis By: Frances Karamouzis; Gilbert van der Heiden

Definition: Packaged application services describes the range of services required to assess, design, configure, implement, deploy, manage, monitor, enhance, maintain or retire/replace commercial off-the-shelf (COTS) software. Off-the-shelf applications are precompiled, thoroughly tested and fully functional software with defined functions for defined interactions with defined results.

ERP, CRM, supply chain management and business intelligence packaged application services describes the range of services required to assess, design, configure, implement, deploy, manage, monitor, enhance, maintain or retire/replace COTS software. Off-the-shelf applications are precompiled, thoroughly tested and fully functional software with defined functions for defined interactions with defined results.

ERP, CRM, supply chain management and business intelligence suites (for example, those from SAP, Oracle, Microsoft and salesforce.com) are the most common of the packages targeted in the scope of application service deals; however, packaged applications also include many niche and/or industry-focused or process-focused application packages or enable portfolio management.

Packaged application services are contracted by an enterprise across the entire life cycle of a project (design, build, run, optimize, overhaul) either as:

- Discrete project-based services
- Outsourced services

Within the category of discrete project-based services, the types of projects include:

- Business consulting
- IT consulting
- System integration
- Application development
- Testing
- Training

All of these services are designed to help companies assess and access the needed functionality of the application. They also allow companies to analyze and improve the efficacy of business operations and technology strategies through the use of packaged applications to enable core processes within finance, human capital, asset management and operations management. The consulting services listed above are generally aimed at assessment, design, configuration and architecture of the business process, with the packaged application being deployed to enable the process. System integration and application development services customize or develop IT solutions, assets and processes, and then integrate them with established infrastructure and processes.

Applications outsourcing (AO) services are undertaken once the packaged applications are deployed. The main focus of packaged application outsourcing is the ongoing maintenance and management of the packaged application. Packaged AO is a subset of Gartner's AO definition: "a multiyear contract/relationship involving the purchase of ongoing application services from an external service provider." The provider supplies the people, processes, tools and methodologies for managing, enhancing, maintaining and supporting packaged applications, including hosted applications. Please note that this does not, by itself, include software maintenance agreements (maintenance, patches and fixes) that are normally contracted with the ISV or a separate specialized provider, and are normally not part of the core packaged application services contract.

Enterprises require the entire spectrum of application services in order to successfully deploy the packaged applications and ensure the ongoing management and maintenance. However, depending on their sourcing strategy, appetite for risk and internal staffing, there are a variety of approaches with regard to using external service providers to help with the required application services. The range of services is broad, and many enterprises mix and match their use of all of types application services. Some also bundle application services with business process or infrastructure services, while many others choose a select subset. There follows extensive lists of

the types of application services that are commonly included across the application services spectrum.

Application Design and Deployment

- Assessment of the existing application inventory to provide strategic advice
- High-level design
- Detail design (process, architecture, technical specifications)
- Requirements analysis
- Gap analysis (functional and technical specifications)
- Use-case development
- Configuration
- Application development
- Database design
- Interface development
- Security
- System testing
- Regression testing
- User acceptance testing
- Training
- Change management

Application Maintenance, Management and Support

- Strategic retire, replace or overhaul analysis
- Corrective maintenance
- Incident and problem management
- End-user administration and support
- Database administration
- Interface maintenance
- Management of batch jobs and interfaces
- Transport of corrections into production
- Adaptive maintenance
- Configuration management
- Changes and enhancements

- Release management
- Reactive system and application configuration
- Preventive maintenance
- Proactive system and application configuration
- Capacity management
- Security management
- Continuity management
- Perfective maintenance
- Performance and fault monitoring
- Performance tuning and tweaking
- Performance management

Common combinations include the architecture, configuration, implementation, and then corrective and adaptive maintenance and support of the implemented packaged application. Often, end users remain accountable for the licenses and software maintenance contracts.

AO Bundled With Business Process Outsourcing

- Discrete/single process outsourcing
- Comprehensive outsourcing

AO Bundled With Infrastructure Outsourcing

- Connectivity
- Data center
- System administration
- Service/help desk

As more alternative delivery and acquisition models are introduced into the market, the range of service combinations for applications services will continue to morph.

Position and Adoption Speed Justification: During 2009 and the last several years, several market dynamics (from the demand and supply side) contributed to the position and adoption speed of packaged application services. Here, we summarize the major items. These six market dynamics are not in any particular order:

- **Increased Focus on Analytics.** Analytics-driven decision making has had significant hype and discussion for over 18 months. And business intelligence service has continued to drive lots of demand. This is important for core packaged application services, because the foundational work and data for building data warehouses, business intelligence applications and analytics dashboards all rely on the underlying suite of packaged applications. Therefore, the significant focus on analytics-driven work has led to an increase in packaged applications business and IT consulting, as well as system integration work and outsourcing.

- **Recession and Recovery.** For U.S. companies, the past 18 to 24 months have been filled with unrelenting scrutiny of all aspects of their business operations, with the aim to reduce their spending. The current European economic volatility is bringing this kind of fierce focus on efficiency as well. All aspects of operations are in scope for cost cutting. Packaged applications are often the epicenter of these major searches for cost reduction, because they are often not associated with direct revenue to the enterprise. These applications are considered back office. Here, again, due to the need for some type of written guarantees, this kind of work often triggers seeking out third parties for contractual connections to achieve savings from consultants, system integrators and outsourcers.
- **Upgrades.** Annual announcements of packaged software versions that are no longer supported — forcing compulsory upgrades or reinstallations, or new releases to gain more functionality — create "a fork in the road" and uncertainty with regard to cost structures and sustainability. Many enterprises continue to face the harsh reality of spending more time, money and resources on upgrading their packaged applications and supporting technology. This is often a nontrivial issue given the size of the expenditure that is normally associated with software licensing, hardware and overall services costs. Therefore, upgrades often act as a catalyst to looking externally to third party experts for consulting, system integration and outsourcing for predictability, first-time-through quality and ongoing consistency.
- **Scarcity of Skills.** The increase in demand for efficiency and effectiveness continues to impact the imbalance of supply and demand in specific locations. Therefore, the scarcity of specific skills by product and module acts as an additional pressure point on the demand for packaged applications services. Also, attaining vertical domain knowledge has been an age old struggle and has not diminished. The collective impact of the scarcity of skills is a driver of premium pricing. As a general rule of thumb, packaged application skill sets tend to command a 10% to 20% price premium above standard mainstream application services skills (such as Java or .NET).
- **Process and Technical Standardization.** After globalization, the next big wave of change has been process and technical standardization; once again, the primary driver being efficiency and efficacy of operations. The bottom line is that enterprises are more clearly equating modifications, inconsistencies and lack of normalized processes. In addition, technical standards of packaged implementations have a multiplier effect on the ongoing management costs, and will hamper an enterprise's ability to react to business changes. Thus, there is a real business pressure to get different business units "on the same page." This is driving a significant demand for consulting, system integration and outsourcing.
- **Promised Land of "as a Service" Options.** All types of technology as a service offerings (including but not limited to software as a service) promise to shorten application life cycles and allow for quicker implementations. They also promise significantly lower maintenance and management costs along with better budgeting predictability. The collective promise of these new alternative options continues to be a disrupter that pushes the market (buyers and sellers) to new investments, innovations and net new work.

User Advice: Before engaging consulting firms and system integrators, or outsourcing any applications, enterprises must analyze their portfolio of applications to determine the risks and opportunities associated with the transfer of responsibility to a third party. If the packaged applications are intricately connected to business processes, provider evaluations must properly weigh process and industry vertical expertise, as well as application skills and capabilities.

A major consideration with packaged applications services is the level of customization. The higher the levels of customization, the more expensive and complex the initial deployment will be, and this will also multiply the ongoing maintenance and management costs. When setting a long-term strategy for designing, deploying and maintaining packaged applications, enterprises need to compare and contrast the expected benefits and drawbacks of customized vs. noncustomized packaged applications on their processes, business and organization. Most organizations do not fully quantify the high costs associated with customization, but predominantly focus on the expected benefits. They often fail to re-examine, measure and monitor the status of the benefits as time goes on.

In packaged application services, provider selection requires a more-rigorous process based on many more variables, including: the provider relationship with the software vendor; the location of resources; the location of the technology; worldwide compliance issues; governance; cultural and organizational fit (especially in global delivery models); quality of training required and available; knowledge of release plans; vertical and industry expertise; technology and architectural considerations that may affect plans; embedded processes in the application (and vice versa); and an understanding of the core business requirements that the application supports.

All too often, Gartner sees enterprise buyers making tactical decisions regarding the use of applications services. While this varies, enterprises often have large, extensive applications portfolios and, inevitably, they get pressured, which results in tactical decisions that most notably focus on cost cutting. This leads to a vicious cycle of increased longer-term spending. In today's ecosystem of technology and delivery choices, mistakes are increasingly unforgiving. It is now a sourcing imperative for organizations to continuously examine their application services sourcing options as a normal course of business under the guidance of their sourcing strategy.

This assumes there is a sourcing strategy, which often is lacking, because there is no consistent approach to sourcing in many global and regionally operating organizations. Therefore, it's necessary for application and sourcing managers to be proactive and thorough, and to ensure that application strategies are aligned with sourcing strategies, so that decisions and risk mitigation plans are developed through an informed analysis.

Furthermore, organizations must plan for the ongoing management and support of applications when they first make the decision to deploy them. Organizations have historically waited too long to conduct systematic analyses of support options and costs, and thus have had difficulty obtaining the services they hoped for and the price they thought they could get.

As a premise, end-user organizations should always involve business users of the applications in the sourcing strategy, and define their roles in sourcing governance. Ensure that the IT organization does not make initial or ongoing decisions that have a business impact outside the purview and influence of the business. Organizations that approach application services as a technology service decision are setting the stage for problems with business users. And organizations that approach application services as a business service decision are setting the stage for problems with the IT organization and (external) service providers when they are not consulted.

Business Impact: Acquisition and deployment of packaged applications is premised on the idea of "buying" core functionality (rather than building from scratch) in order to achieve a faster, better or cheaper approach. The approach is a buy (versus build) mentality to access applications functionality, thereby reducing costs, complexity and risks. It is also designed to yield faster time to market. Furthermore, many enterprises strive for no/low customization of COTS applications to make maintenance/management less costly and less complex.

Based on this approach, the use of IT service providers for consulting, system integration and outsourcing application services is premised on the same approach and designed to address the

same business impact; namely, reducing costs, complexity and risk coupled with faster time to market. The use of external providers for this work is focused on bringing in experts who have done this work multiple times, can apply best practices and manage the risk to execute faster, better or cheaper.

With discrete services such as consulting and system integration, the business impact increases when the IT service provider is not only an expert in the package but can also bring industry expertise, process expertise, project management skills and many other project-specific needs. Furthermore, the use of a well developed and tried and true methodologies, tools, accelerators as well as other intellectual property can bring significant business impact in the form of business process and IT improvements.

For longer-term outsourcing services, the business impact also comes from some of the same assets of the provider (namely, industry and process expertise as well as methodologies, tools, accelerators and other intellectual property). It goes beyond that, in that outsourcing allows for a longer-term approach to continuous improvements in the delivery model as well potentially employing shared resources and/or multitenancy options that further reduce costs. Overall, the benefits will typically come from application life cycle performance improvements, decreased labor costs and the reduction of internal responsibilities. These benefits can occur relatively quickly if the provider is given true delivery management authority and accountability for outcomes.

The benefit has a potentially higher impact in the long term if the organization and provider engage in joint planning for the packaged application portfolio and the associated services needed to support it. If the outsourced relationship is flexible and able to adapt as business realities change, then there is greater potential for significant business impact. If organizations set restrictions on technology and delivery options — and many still do — then the benefits will be clearly lower, because service providers will increase the cost of delivery provision and limit the service levels and potential service benefits.

Benefit Rating: Moderate

Market Penetration: More than 50% of target audience

Maturity: Mature mainstream

Sample Vendors: Accenture; ACS; Atos Origin; Capgemini; CedarCrestone; CGI; Ciber; Cognizant; CSC; HCL Technologies; Hexaware Technologies; HP; IBM Global Services; Infosys Technologies; Intelligroup; Logica; L&T Infotech; Neoris; Patni Computer Systems; Siemens; Softek; T-Systems; Tata Consultancy Services; Wipro Technologies; Yash Technologies; Zensar Technologies

Recommended Reading:

"Key Issues for Service Sourcing Strategy, Management and Governance, 2010"

"10 Ways Application Outsourcing Can Reduce the Cost of Quality"

"Q&A on the Right Number of Application Outsourcing Providers to Use"

"Magic Quadrant for SAP Outsourcing, North America"

"Magic Quadrant for Oracle Outsourcing, North America"

Custom Application Services

Analysis By: Frances Karamouzis; Gilbert van der Heiden

Definition: Custom application services is the range of services required to design, develop, test, integrate, deploy, manage, enhance and maintain custom developed software. Custom application services are contracted by enterprises across the entire life cycle (design, build, run, optimize or overhaul) in the following methods of purchase:

- Discrete project-based services
- Outsourced services.

Within the category of discrete project-based services, the types of projects include:

- Business consulting
- IT consulting
- System integration
- Application development
- Testing
- Training

Custom AD services involve a relationship between an enterprise and an external service provider, in which the provider supplies the people, processes, tools and methodologies to deliver any of the project-based services listed above. The consulting services are generally aimed at architecting, detail design, development, integration and testing of application functionality deployed to enable a business or IT process. Custom AD contracts usually have a finite start and end date, specific scope of deliverables and a budget. The budget may be a fixed structure based on the scope and underlying assumptions, or it may be driven by the level of effort associated with a timeline and allocated resources.

AO services are undertaken once the custom applications are deployed and typically in a production environment. The main focus of packaged applications outsourcing is the ongoing maintenance and management of the packaged application. Custom application outsourcing is a subset of Gartner's AO definition: "a multiyear contract/relationship involving the purchase of ongoing application services from an external service provider." The provider supplies the people, processes, tools and methodologies for managing, enhancing, testing, maintaining and supporting packaged applications, including hosted applications.

Custom AO encompasses a range of services required to manage and maintain applications that have been developed specifically for a client's environment and business needs. For many organizations, their application portfolios range from newly built applications to enhanced applications or legacy applications. Thus, there is a variety of needs with regard to the ongoing maintenance and management of applications. The chief issues are often application architecture, integration to other systems, geographic dispersion of use and management, complexity, business criticality and the overall cost to manage. Increasingly, the issue of applications modernization is considered with custom applications; this is often a part of AO deals.

Custom AO contracts usually include labor-based pricing for a pool of resources that are used for maintenance and support. When there is sufficient baseline information to define specific units of work and associated service levels, contracts generally include SLAs and unit pricing. Additionally, time-and-material pricing is also used, particularly in AO engagements where cost and performance baselines are unclear. Organizations typically evolve to a preference for fixed-price contracting to give greater predictability. The contracts typically have a defined, multiyear

term, rather than continuing indefinitely on a month-to-month or year-to-year basis. Organizations also transfer management and delivery responsibility to the provider via formal terms and conditions in the contract.

Position and Adoption Speed Justification: Many enterprises have extensive experience with custom application services. Service providers have been working with enterprises to provide all types of custom application services to provide unique functionality, fill gaps in packaged software and gain higher levels of efficiency and effectiveness. Triggering points for new custom development emerge from significant changes in business dynamics and/or new technology and standards.

During the past few years, there were large spurts of increased levels of custom application services, due to offerings and options introduced by global sourcing options (such as significantly lower price points, higher levels of rigor with fewer defects and overall reductions in long-term total cost of ownership). Given the extensive adoption of global delivery during the past 10 years, many enterprises are starting to recognize the critical need for business outcomes beyond pure labor arbitrage, and are becoming more discerning in seeking other measurable business benefits. Moreover, enterprises are focused on time to market and first time through functionality alignment. Therefore, agile development methodologies, iterative design and SaaS approaches to fulfill functional business needs are receiving an increasing focus.

The continued quest for more highly adaptive functionality that meets business demands at the most optimized price point as well as the lowest total cost of ownership have reinvigorated the supply side of the market, triggering vendor offerings for SaaS, cloud services and all sorts of application options. All of these shifts have created the need for consulting services and application management services to help navigate the increasingly complex landscape, develop implementable solutions and provide the downstream services to deploy them. The dilemma is that many of these directions require wholesale changes to foundational layers of technology, and large shifts in the application portfolio.

Custom application services are continuing up the Slope of Productivity even if we emerge into a critical inflection point in the evolution of IT service markets — specifically, the choices are between customization or prebuilt/configurable solutions based on standardization. As soon as the shift is made to more prebuilt or configurable application work that's grounded in much-clearer links to business benefits, a newly defined trajectory will emerge. In the end, the alternative delivery models in SaaS, or other multitenant approaches to the delivery of software and services, will present undeniable opportunities for buyers and sellers that will deliver the business case justification for custom application services — initially into a period of limited innovation investment. However, custom application probably won't be entirely replaced by these new alternatives.

There will always be a focus on new or unique functionality for competitive advantage and differentiation. Why moving up the slope and not moving down given this expected inflection? To differentiate themselves, providers continue to increase and combine industry and platform capabilities with high process maturity, automation and industrialization. As a result, maturity of custom application services mature in parallel with the expected paradigm shift. Nonetheless, the appropriateness, business justification, quantitative cost analysis and approach to custom AD will undergo a paradigm shift during the next five years.

User Advice: Custom application services continues to be an area of high volume and considerable attention for many buyers and sellers (IT service vendors). The application service provider market is extremely fragmented with an extensive number of vendors. Considerable investment is being made, and vendors continue to expand their portfolio of offerings. As such, enterprises would be wise to:

- Undertake an application portfolio assessment to ensure an accurate view on the extent of the custom applications currently being supported, the relevance of legacy applications to current business, and the full costs to operate a custom application portfolio. Those applications that are not in active use should be retired.
- Revisit the key value proposition and realized benefits for their applications services deals. Providers and buyers remain under great pressure to deliver anticipated margins and respective benefits. When financial performance is not achieved on a deal-by-deal basis, buyers are seeking changes to agreements (service levels, terms or scope of work), source of skills (offshore movement) or alternative pricing to enable them to achieve better financial performance.
- Ensure that they have a solid foundation of baseline data for all the key variables controlling the management of the application portfolio. If they do not, organizations should pursue application portfolio analysis and subsequent rationalization. Enterprises should clearly understand (including a rationalization analysis of) their application portfolios, and how each business process and/or application area will be sourced to deliver on business goals. Applications strategy refinement may include seeking out SaaS solutions, bringing some applications back in-house or outsourcing others. It may also entail moving more applications offshore.
- Engage in serious evaluations of alternative delivery and acquisition models, such as SaaS and emerging cloud-based applications and application platform as a service, as they become more prevalent and proved. Adoption of these models will drive changes to application portfolios in many organizations, custom applications will potentially receive less attention and funding, and the market will react by reducing its focus on custom applications. The pressure to reduce custom application support costs will become more intense. Enterprises must choose wisely.

Based on Gartner best practices, we advise organizations to always start with the core foundational elements of business-driven strategic sourcing. Organizations must have a sourcing strategy that helps define internal and external sourcing expectations, clear requirements and well-developed statements of work in deal structures, performance standards and quality assurance mechanisms. Finally, governance and ongoing sourcing management are critical to the ongoing execution of the sourcing strategy.

Business Impact: Custom application services can enable several core benefits. Organizations can:

- Achieve cost reduction if the custom solution successfully shifts the business process or the efficiency of IT delivery.
- Access skill sets that may be difficult to attract and retain internally.
- Achieve more standardization, process consistency, better quality and better control of highly complex custom applications.
- Access global sourcing models via external providers.
- Redirect resources and focus more on core business.
- Access the market's best practices/processes that the organization might not be able to obtain internally.
- Add additional rigor in design, development and testing.

The watch areas include:

- Selecting the optimal mix of internal and external resources.
- Selecting vendors based on a business-based sourcing strategy.
- Managing disruptions due to attrition, vendor maturity and vendor consolidation.

Benefit Rating: High

Market Penetration: More than 50% of target audience

Maturity: Mature mainstream

Sample Vendors: Accenture; Atos Origin; Birlasoft; Capgemini; CGI; Cognizant; CSC; Epam; HCL Technologies; Hexaware; HP; IBM Global Services; Infosys Technologies; Logica; Luxoft; L&T Infotech; Patni Computer Systems; Siemens IT Solutions and Services; Softek; Steria; Syntel; T-Systems; Tata Consultancy Services; Tieto; Wipro Technologies

Recommended Reading:

"Key Issues for Application Services, 2010"

"How to Bundle Your Services in an Infrastructure and Application Outsourcing RFP"

"IT Key Metrics Data 2010: Key Applications Measures: Development Practices: Current Year"

"Pricing Model Definitions, Benefits and Risks for IT Services and Outsourcing Contracts"

"10 Ways Application Outsourcing Can Reduce the Cost of Quality"

"Gartner's Leading Locations for Offshore Services in the Americas for 2010"

"Tutorial for Defining Key Offshore Services and Global Delivery Terms"

Print/Mail Business Continuity and Disaster Recovery

Analysis By: Pete Basiliere

Definition: Print and mail recovery involves the ability of any enterprise, large or small, to continue producing and shipping the physical documents needed for generating sales and collecting payments when the primary operation responsible for the work is incapacitated. Print and mail recovery can be provided internally or externally, with the choice independent of where the normal production takes place. Companies that have an in-house production operation may choose to have an outsourced service provider perform print/mail recovery or, if they have more than one production site, enable the sites to back up each other. Companies that have outsourced their print/mail production are likely to have the original outsourcer secure its own backup resource, taking advantage of the provider's multiple sites and staffing, or retain a second outsourcer for recovery needs.

Position and Adoption Speed Justification: A comprehensive continuity plan balances IT system availability with an understanding of the costs (financial, regulatory and reputation) associated with business outages to prioritize continuity procedures. Too often, however, the plans fail to consider or to completely cover the company's critical printed customer communications.

Nevertheless, many enterprises at least cover the few key transactional applications (invoices, statements and checks), but not every form of transaction (policies, notices) or customer

communication (direct mail, marketing collateral). Even if they have a written recovery/continuity plan, most enterprises don't conduct regular, realistic tests involving live data, or they have ill-formed plans to use a local mailing organization with questionable ability to handle large volumes of sensitive correspondence on short notice or for long periods of time.

Well-qualified print and mail business continuity providers have the necessary capabilities and capacity to provide all-inclusive coverage. Several of these providers, such as the ones listed below, have been offering these services for many years. So, while most enterprises do not have a comprehensive print and mail recovery plan in place, the resources exist that will provide complete recovery if the enterprise chose to do so.

User Advice: Infrastructure and operations managers who plan for business interruptions must conduct regular, comprehensive reviews and tests of the plans to cover the company's critical printed customer communications. As part of the review, managers must determine the impact on the business if mailings are missed, including direct costs (lost revenue and fines for failing to meet regulatory requirements) and indirect costs (damage to relationships with customers, suppliers and business partners). Also, determine whether print and mail continuity services will be provided internally or externally, considering internal capacity, potential outsourcers' locations and services, and costs.

If outsourcing the recovery, then evaluate potential print/mail recovery providers based on their physical locations, networking, computing and telecommunications systems, printing and mailing equipment, and quality assurance procedures. Once the review is complete, test the data processing, printing and mailing of the selected applications to ensure they are accurately produced within your service-level requirements.

Business Impact: The possible consequences of a missing, incomplete or outdated continuity plan, and therefore the inability of the print and mail operation to function at 100% during the event, are potentially disastrous for every organization. Possible critical issues include:

- Inability to produce mission-critical financial transaction documents, such as invoices, statements and checks
- Significant interruptions in the supply chain (inbound paper, envelopes and supplies, as well as outbound mail and shipments) and inability to make postage payments
- Failure to produce required documents within prescribed time frames to meet regulatory requirements

Benefit Rating: High

Market Penetration: 20% to 50% of target audience

Maturity: Mature mainstream

Sample Vendors: Bowe Bell+Howell; Cosentry; FTC Continuity Services; Kubra; Mail-Gard; MBA Group; Pitney Bowes

Recommended Reading:

"Supplier Communications Critical During a Pandemic"

"Predicts 2010: The Role of Business Continuity Management Continues to Expand and Extend"

"Incorporate Print and Mail Into Your Disaster Recovery and Business Continuity Planning"

Desktop Outsourcing

Analysis By: Frank Ridder; William Maurer

Definition: Desktop outsourcing is a multiyear or annuity contract/relationship involving the day-to-day management of desktop/client platforms. Services include any combination of product support and professional services as they relate to the ongoing operation of these assets (including desktop peripherals).

Desktop outsourcing contracts always include, at minimum, services encompassed by the computing environment of the operation services segment. Help desk management services are included only to the extent that problem determination and resolution are at the computing hardware level, or the infrastructure software or operating system (OS) software levels. Application management services are included only at the office application, infrastructure software or OS software level.

A desktop system can include any client workplace system (including a notebook PC), as well as the client systems of remote employees such as telecommuters and mobile staff. Services may be provided at the client's site or off-site. Desktop system IT assets may be owned by the client, the ESP or a third party. Contracts can include the transfer of client employees, IT assets and facilities to the ESP.

Position and Adoption Speed Justification: Desktop outsourcing remains a widely used sourcing option. Especially during 2009 — a tough economic year — more companies looked into outsourcing this part of their IT. Satisfaction levels remain reasonably high, both in terms of the services organizations receive and their relationships with desktop outsourcing providers. In the 2010 version of Gartner's key metrics, data satisfaction for desktop outsourcing scores 3.3 of 5. Value comes from multiple areas: economics, standardization, quality of service and innovation.

Although the services available are mature, service providers' portfolios are continually enhanced to reflect the changing needs of end users and organizations. Therefore, the market keeps changing, and the list of key themes lengthens. To traditional topics such as the IT Infrastructure Library (ITIL), global delivery, standardization and self-help/self-heal technologies we may now add "green" IT solutions (zero-emission clients), virtualization (virtual desktop infrastructure, desktop clouds, application virtualization and user-owned devices). In particular, virtual desktop solutions have been considerably reworked in the past 12 months. Most vendors have developed a broad portfolio, ranging from dedicated virtualization solutions to shared solutions (sometimes called desktop cloud solutions).

In the desktop outsourcing area, which is becoming commoditized, differentiation increasingly comes from non-IT elements and services around the desktop. For example, vendors will complement a user-owned device solution with consultancy services on total cost of ownership, tax or legal topics. The virtualization trend is underpinned by an increase in the number of thin clients and virtual desktops managed by desktop-outsourcing service providers in a desktop-as-a-service way.

Desktop outsourcing often includes help desk services — an area that gains added importance as end users become more knowledgeable and IT-savvy. As adoption of globally delivered help desks increases, service providers invest more in automating this area. The "new" end users and the maturity of the desktop-outsourcing market allow service providers to move away from technology and user-based relationships into role-based relationships. Service providers increasingly have offerings that describe between four and 20 roles (such as sales, traveler, management, administration) in which they package end-to-end solutions including service levels, and for which they have standardized pricing. This enables a much more outcome-oriented

discussion between the service provider and a client organization; it also provides more flexibility in the evolution of a multiyear desktop-outsourcing relationship.

Recent Gartner user wants and needs surveys indicate that, of those organizations involved in an outsourcing deal, 37.8% (up four percentage points) outsource desktop services in whole or part. North America (35.6%), Western Europe (35.8%) and Asia/Pacific (43.2%) are not materially different in their attachment rates for desktop outsourcing. According to one of these surveys, during the next 12 months up to 18.6% of organizations are likely to outsource desktops in whole or part. Although North America and Western Europe have shown similar adoption of desktop outsourcing, Gartner's research shows higher user spending on desktop services in Western Europe than in North America (\$15.3 billion versus \$11.8 billion) in 2009. In Asia/Pacific, country profiles vary, from quite mature use of outsourcing services in Australia and New Zealand to lower adoption in emerging country markets.

User Advice: Desktop outsourcing is a widely used and cost-effective approach that is growing in popularity. Ensure that you are prepared to outsource your desktop support based on a long-term perspective, not merely for short-term cost improvements.

Excellent candidates for desktop outsourcing are organizations that:

- Do not view desktop support as a core competency.
- Do not have a mature internal desktop support function.
- Are hesitant to invest in new technologies, such as remote management of the desktop environment.
- Want to have a total desktop service solution provided by a single provider.
- Want to move into higher levels of standardization.
- Need to have desktop support services cover personal productivity equipment such as PDAs, BlackBerry devices and cell phones, including user-owned devices.
- Need extended daytime coverage or geographic reach.
- Have not yet automated the desktop environment.
- Have a minimum of 100 seats per site, 500 seats in total, or 10 users in total for a fully virtual desktop offering.

Consider the key price drivers to optimize a desktop outsourcing deal: scope, scale, support environment, technical environment, service level, terms and conditions, labor market factors, workload volume and geographic distribution.

Desktop outsourcing services — an aspect of infrastructure services — are often not identified as a core competency by many companies. Therefore, many CIOs view them as services that can be outsourced successfully.

Consider desktop outsourcing when you want to focus valuable IT resources on service projects that have a more significant impact on business performance, or when you are suffering a skills shortage due to an aging workforce or local competition. Recognize, however, that desktop outsourcing may be inappropriate if your desktop support requires a client-intimate delivery model that is associated with a high degree of complexity, or if outsourcing is simply incompatible with your organization's culture.

Help desk outsourcing is often closely associated with desktop outsourcing (see the references in the Recommended Reading section for best practices in these areas).

Business Impact: Desktop support is perceived as a mundane, commoditized and yet essential part of almost every organization. Because of this commoditization, many organizations outsource desktop support to eliminate the need to keep staff and invest in keeping up to date with the latest desktop support technologies. Outsourcing decisions must consider financial and organizational issues, such as cultural and HR concerns. And especially with the new service models for virtualized desktops, compliance, security and data privacy considerations have to be reevaluated.

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Mature mainstream

Sample Vendors: Atos Origin; CGI; Ciber; CompuCom; Computer Sciences Corporation (CSC); Dell; Getronics; GlobalServe; IBM; Lockheed Martin; Logica; Northrop Grumman; Pomeroy IT Solutions; SAIC; Siemens IT Solutions and Services; TechTeam; Unisys; Xerox

Recommended Reading:

"Optimize Desktop Outsourcing Costs by Correctly Using Nine Deal Complexities"

"Magic Quadrant for Help Desk Outsourcing, North America"

"Magic Quadrant for Help Desk Outsourcing, Western Europe"

"Magic Quadrant for Desktop Outsourcing, Western Europe"

"Magic Quadrant for Desktop Outsourcing Services, North America"

"Optimize Desktop Outsourcing Costs by Correctly Using Nine Deal Complexities"

"Toolkit: Example: Desktop Managed Services Statement of Work"

"Toolkit: Desktop Managed Services Outsourcing Roles and Responsibilities Matrices"

"Toolkit: Best Practices for Desktop Managed Services' Outsourcing Service Levels"

"Toolkit: Pricing for Desktop Outsourcing Services, 2009"

"Exploit Cost and Performance Opportunities in the Rapidly Evolving European Help Desk/Desktop Outsourcing Market"

Web and Application Hosting

Analysis By: Ted Chamberlin

Definition: Web hosting, which includes custom and packaged application hosting, is the outsourcing of some or all the infrastructure and management associated with Web-based content and applications. Customers are provided with Internet data center facilities, bandwidth, computing capacity, security and storage, as well as associated managed services. This infrastructure may be shared, dedicated, virtualized or provisioned on a utility basis. Typically, the Web hoster is responsible for the day-to-day operation of the infrastructure. In application hosting, the provider will provide day-to-day application management tasks, in addition to infrastructure management. The transfer of technical and staff assets is relatively rare, with customers tending to provide their own software licenses and hardware.

Position and Adoption Speed Justification: Web and application hosters have mastered the basics of network, infrastructure and operational support in dedicated environments, and now must look to extend this level of competence to virtualized and cloud-centric environments. Although hosting providers have improved customer support processes, this area still continues to be problematic for some. This movement toward "hybrid" hosting environments, where applications are hosted on a combination of dedicated and virtualized platforms, will start to separate the leading providers from those that offer only partial solutions.

The increased interest in cloud-computing and SaaS models continues to push hosting providers to develop additional complimentary service stacks where compute, storage and network are provisioned in an elastic manner, and billing is based on consumption of resources. These usage-based services, commonly referred to as "utility or infrastructure as a service," focus heavily on server, storage and file-sharing capabilities; commercial enterprise application hosting continues to thrive on dedicated enterprise server platforms, but is starting to incorporate virtualization and utility compute for nonproduction architectures.

As hybrid hosting offerings become more user-friendly, enterprises will start to divide applications and workloads between both dedicated and multitenant-based hosting services. This drive toward more-hybrid hosting will have financial implications for the hosters, in terms of capital investments needed to fund virtualized compute and storage estates, and in terms of advanced automation for fabric control and for metering/billing systems.

User Advice: Most enterprises should consider external hosting in their tactical and strategic sourcing decisions, because the services and products have become standardized and mature. Not every service provider can deliver all levels of support (especially enterprise application management and utility/cloud services), so we recommend engaging in a competitive bid situation to ensure that the provider has the requisite processes, facilities, networks and service levels.

Business Impact: Web and application hosting provides a greater reliability, scalability and technology expertise than in-house hosting for all but a few enterprises that have complex application integration needs, or whose IT operations are large enough to match the scale of a Web hoster. Web hosters typically also have higher-quality facilities, diverse carrier networks and deeper system support personnel than enterprises. However, the customer is restricted to the technologies supported by the Web hoster, and, as with all outsourcing, there may be some loss of control.

Benefit Rating: High

Market Penetration: 20% to 50% of target audience

Maturity: Mature mainstream

Sample Vendors: AT&T; CSC; HP/EDS; IBM; Interoute; Macquarie Telecom; NaviSite; Orange Business Services; Quality Technology Services; Rackspace; Savvis; Secure-24; SingTel; SunGard Availability Services; Terremark Worldwide; The Planet; Verizon Business

Entering the Plateau

Telecom Expense Management

Analysis By: Phillip Redman

Definition: Telecommunications expense management (TEM) includes the management of fixed and mobile communication services and hardware. It may also include professional services that support sourcing, auditing and strategy. TEM employs offerings ranging from an on-premises and

SaaS-based application, to a managed service scenario to full business process outsourcing (BPO) offerings for managing telecom spending. TEM has seen continued growth in adoption and awareness, and service offerings and TEM platforms are becoming more consistent and standardized. Though the rate of vendor consolidation through mergers and acquisitions has slowed, it has not stopped, and additional activity is expected in the next year as competition and the number of TEM vendors remain high.

Position and Adoption Speed Justification: The market offerings that support wired and wireless service management have remained fairly consistent over the past year. This year, services that include mobile device management are expected to be launched, and a few providers already have done so. Adoption continues to increase as companies look to reduce costs related to telecom services, as well as manage them (for example, procurement and monthly invoice audits). Most of the Fortune 500 are already using some type of TEM service. TEM continues to be adopted mainly as a managed service, though full business process offerings are maturing and being adopted.

Fully managed BPO continues to be a fast-growing area, as companies look to fill in missing resources by outsourcing the service management components, such as rate plan optimization, invoice management and bill payment. The number of market entries continues to expand, as does the number of regions that have TEM providers, although the majority are still in North America. Global TEM will also be one of the main areas of concentration in the next year, as global companies look to manage telecom services across regions.

User Advice: TEM continues to provide excellent management capabilities that can help identify and control areas of spending. TEM outsourcing also has grown as a way of helping fill in services that the enterprise no longer has resources to manage. Identify key areas that go beyond the enterprise core competency, and that have growing usage and increasing costs for outsourcing, including global management, policy, procurement and mobile device management. Enterprises need to include fixed and mobile TEM as part of their outsourcing strategies for cellular, data, long distance, Wi-Fi hot spots, dial-up and any other remote-access services. Enterprises must create a list of expectations about how TEM will change the way telecom services are sourced and managed regarding key elements, such as expected return, responsibilities and impact on head count. Consider benchmarking current hard and soft costs, to understand the full impact of TEM services.

Business Impact: TEM reduces the costs of telecom services by providing rate plan optimization and invoice management (error reduction dispute management), and TEM provides management and resources for service management where there were none. Although support is just growing, this capability is required to be provided globally to allow a global view of telecom service expenses when needed. In addition, depending on the current level of governance, a continued savings of 10% to 35% of total spending may be achieved, though first-year savings will be higher than concurrent years, with a relative investment of 0.25% to 2% of service spending (the range depends on the size of total telecom spending).

TEM provides deeper insight into total telecom spending across multiple providers and geographies, and provides better service for procurement. TEM providers have made slight gains to integrate carrier provisioning and billing systems through "e-bonding" in the past year, though offerings are still limited. As carrier back-office systems continue to enable more e-bonding, these services will become even more accurate and capable of delivering real-time ordering and service information. Many communication providers are launching their own TEM services, usually through a partnership with TEM providers, though uptake is better outside the U.S. for these products.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: Invoice Insight; ProfitLine; Quickcomm; Symphony Services; Tangoe

Recommended Reading:

"Mobility Telecom Management Outsourcing Matures"

"MarketScope for Telecom Expense Management"

"Toolkit: RFP Provisions for Telecom Expense Management Services"

"Toolkit: Best-Practice Terms and Conditions for TEM Services"

"Toolkit: Telecom Expense Management SLA Guidelines"

Help Desk Outsourcing

Analysis By: Gianluca Tramacere; Richard Matlus; Jim Longwood

Definition: Help desk outsourcing is a multiyear or annuity contract or a relationship involving the transfer of day-to-day management responsibility of the help desk to an ESP. Minimally, help desk outsourcing will always include all help desk management services focused on the desktop or client environment. Help desk outsourcing services include any combination, or all, of the product support and professional services that relate to the ongoing management of Level 0 (self-help), Level 1 and Level 2 help desk resources. Level 1 addresses problem management of end-user inquiries and service requests, such as installations, moves, adds and changes, that require standardized responses. Level 2 handles problem management of end-user inquiries that require specialized responses.

Help desk outsourcers provide services on a stand-alone basis as a selective outsourcing engagement, or more commonly, bundled into an outsourcing engagement for desktop outsourcing. Other environments, such as data center, applications or network management services, may also be bundled. Help desk outsourcing can include a portfolio of product support and professional services that are brought together to provide the client with the IT infrastructure, enterprise applications and business process services to help ensure the successful mission of the organization.

IT help desk assets may be owned by the client, an ESP or a third party. Contracts may, but need not, include the transfer of the client's employees, IT assets and facilities to the external provider. The help desk system may well be integrated into asset management systems, as well as have interfaces to other help desk applications used by other support providers.

Position and Adoption Speed Justification: Help desk outsourcing is among the most-mature IT outsourcing areas; in line with this, leading service providers deliver these services consistently with the ITIL v.2 and v.3 Service Operation module. Although it may not represent the core offering for some, most leading providers have capabilities in this area. As another sign of service maturity, help desk services are bundled in desktop outsourcing agreements 80% of the time.

Although at a modest pace, the volume of users is growing, as is the demand for help desk services. This is because a persistently challenging economic climate has driven many organizations to maintain a cautious approach toward outsourcing until a more-stable and clearer business environment is achieved. In fact, a Gartner worldwide survey published in February 2010 ("Survey Analysis: Buyers Signal Positive Intentions for Increasing IT Services Spending Postrecession") shows that more than 40% of the 1,047 respondents were either likely or very

likely to use an ESP for desktop services (which, as noted, traditionally include the help desk) in the next two years, while only about 15% of respondents said that they were not at all likely to outsource the help desk function.

However, the mean results show that, on a scale of 1 to 10 (where 1 equals not at all likely to use an ESP for the service, and 10 equals extremely likely to use an ESP for that service), desktop outsourcing achieved a score of 5.1, the lowest of all the infrastructure-related platforms (data center, network) and one of the lowest overall. This confirms our view of modest growth in the short term. With new, emerging industrialized service offerings (such as IU or SaaS), we expect an increasing need for the Level 1 help desk to be integrated with these offerings while remaining the focal point for service integration delivered by multiple ESPs.

Although the current economic recession is forcing many organizations to focus primarily on cost reduction, in the long term, we expect clients to continue to look at shifting their preferred pricing mechanism from a pay-per-incident, price-per-contact model (often referred to as "price per quantity") toward a wider adoption of pricing per user or device, underpinned by a set of standardized service levels. This shift is seen as necessary to influence service providers' behavior and force them to become more proactive in the deployment of solutions that will reduce the number of calls actually hitting the help desk. These proactive solutions are often labeled as "shift left" solutions. To reduce the number of incidents and proactively roll out patches or standard operating environment upgrades, they rely on items such as:

- Automation (automated password reset, automated software distribution).
- Self-help portals with frequently asked questions that allow users to help themselves to a solution,
- Remote infrastructure services (such as server monitoring and network management) that aim at identifying potential failures before they actually negatively impact the end user's IT performance,
- Focus on delivery processes, typically via ITIL v.2 and v.3, which are crucial to efficiently manage key processes (such as change management) and, importantly, to optimize the link between incident and problem management,
- Continuous process improvement of standardized delivery functions,
- More integration with automated desktop support and infrastructure maintenance tools,
- Integration of service catalogs and related workflow tools with service desk applications to improve service request processing,

This evolution confirms that technology and innovation will continue to replace IT help desk staff and move some of these services offshore. As a consequence of this journey toward enriching help desk solutions with automation, standardization, consolidation and mature tools, providers maintain a crucial cost appeal for help desk outsourcing. However, the help desk remains a labor-intensive environment. As a consequence, leading providers continue to enhance their network of global delivery capabilities, creating multilingual service desk hubs that are designed to address the cost and coverage needs of each region.

Although it often represents a work in progress, providers remain focused on underpinning this network of global help desk capabilities with common tools, processes and methodologies. Over time, for the vast majority of organizations, globally delivered help desk outsourcing will become the norm.

Until now, we have described the potential of help desk outsourcing to deliver higher IT performance at a lower cost. However, it is important to remember that despite its maturity, help desk outsourcing remains a generally very difficult model to manage over time. Common challenges include:

- **Innovation and continuous improvement** — While clients often fail to define innovation at the beginning of the relationship, despite an increased focus on developing shift-left solutions, providers' performance in terms of continuous improvement remains reactive. Their focus is on "keeping the lights on."
- **SLA management** — A focus on hard IT measures may mistakenly give the impression that the deal is successful. A deal is successful only when the end users have an equally positive judgment of "soft" client satisfaction measures, such as attitude of the agents, language richness and cultural understanding, and having a good first-call-resolution rate to avoid "catch and dispatch" or "log and flog" scenarios.
- **Training new agents** — Help desk deals often involve substantial levels of staff attrition (even if, during the current economic recession, all providers report an improvement in this area). A lack of focus on knowledge management techniques/tools and training creates gaps in terms of agent and service delivery quality.

A final challenge is represented by the large number of contract renegotiations that have taken place in the past 12 to 18 months. In an attempt to achieve a cost reduction of about 5% to 10%, many clients have renegotiated their existing contracts, thereby creating the potential for a negative impact on service delivery quality. In the majority of cases, the cost savings granted were offset by an extension of the contract term, "no-frills" or lower SLA targets, and a drive to increase the process of help desk consolidation and transition to nearshore or offshore delivery locations. The speed of change of this evolution has proved difficult in many cases, with an increase of examples of customer dissatisfaction in help desk outsourcing deals. As such, while the renegotiation wave is over, the results of it are likely to be felt for some time.

As multisourcing has become the norm, help desk services have begun to be bundled with those of MSIs) in an attempt to ensure more-integrated and consistent end-to-end service delivery. For more information on globally delivered help desk services, which have their own issues related to the progressive evolution from simple offshore to fully industrialized global delivery, see "Globally Delivered Help Desk Outsourcing" in this document.

User Advice: Help desk offerings are rapidly changing. The key is to keep abreast of market evolution while ensuring that outsourcing is the right decision for your environment. As such, an organization should:

- Evaluate the service delivery road map of providers addressing this evolution and how it can help the organization improve the balance of cost and service quality in the outsourcing deal.
- Proactively evaluate the level of global delivery, standardization, automation and virtualization that it can accept.
- If multisourcing, ensure that the MSI — either your IT department or a service provider — has full visibility, if not control, of the help desk operations.
- Evaluate the service provider's procedures for capturing the knowledge required to support your environment and a knowledge management tool to store this information for easy access by new and current agents/operators.

- Ensure the service provider has prearranged and agreed to procedures for handling cross-service-provider problem resolution.
- Ensure you and your service providers are aligned on how to use the ITIL methodology to manage key processes, such as incident and change management, and are actively migrating from v.2 to v.3.
- Ensure your providers use frameworks such as Six Sigma to continually improve the related help desk processes.
- Differentiate providers by their ability to integrate service catalogs and end-to-end service-level performance monitoring and problem reporting into the service desk application used.

However, if you have a help desk that requires a high level of flexibility/service customization, a strong "client intimate" service model, and a help desk staff that needs a high degree of complex knowledge regarding unique applications or infrastructure, then outsourcing may not be appropriate. This is especially true now that service providers are implementing globally delivered help desk services that tend to make service delivery far less intimate.

Business Impact: Tactical decisions to outsource may actually create friction with business units and multiple service providers, drive underperformance, and negatively affect the enablement of the business users. Hence, organizations must take the time to complete a thorough sourcing strategy and understand the ramifications of these business decisions. In general, however, help desks cover the more-mundane support required for Microsoft and general PC applications. In this case, outsourcing this support service may offer your end users a higher quality of service and eliminate the need to maintain an internal help desk environment.

With the adoption of multisourcing and a variety of cloud-oriented offerings, clients must manage multiple providers. The help desk plays a pivotal role in dealing with the internal staff, as well as the many providers. Therefore, in multisourcing arrangements, the help desk must function as an efficient service integrator; it will provide you with the needed visibility on who is responsible for what and all the relevant efficiency in processes such as change, incident, configuration and (very importantly) problem management. Hence, if the help desk provider is to assume the role of MSI, the help desk provider needs to be empowered with authority and appropriately compensated for that role. In addition, the IT organizations must raise the efficiency and effectiveness of these IT services management processes in a multisourced environment.

Finally, organizations that look at proactivity as a key element in help desk solutions will benefit from a focus on improving end-user and operational efficiency. Over time, as the focus shifts from IT metrics to encompass business targets, organizations will have the possibility of demonstrating how it is enabling the business to achieve its business objectives.

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Mature mainstream

Sample Vendors: Accenture; ASG; Atos Origin; Capgemini; Cegedim Dendrite; CGI Group; Ciber; CITEC; CompuCom; Computacenter; CSC; Datacom; Dell; Dimension Data; Fujitsu; Getronics; GlobalServe; HCL Technologies; HP Enterprise Services; IBM Global Technology Services; Lockheed Martin; Logica; Mincom; NCS; Northrop Grumman; Pomeroy IT Solutions; SAIC; Siemens SIS; Spherion; T-Systems; TechTeam Global; Tieto; Unisys; Verizon Business; Wipro; Xerox

Recommended Reading:

"Magic Quadrant for Help Desk Outsourcing, Western Europe"

"Case Study: Fujitsu Helps U.K. Post Office Deploy a 'Lean IT' Approach to Cut Costs and Improve Help Desk Service Delivery"

"Toolkit: Help Desk Pricing for IT Services and Outsourcing, 2009"

"Help Desk Outsourcing in Europe: Price Decreases and Productivity Increases"

"How to Ensure Infrastructure Providers Can Deliver Service Excellence"

"How to Bundle Your Services in an Infrastructure and Application Outsourcing RFP"

"Magic Quadrant for Help Desk Outsourcing, North America"

"How to Decide Whether to Selectively Insource Your Help Desk"

"Gartner on Outsourcing, 2009-2010"

Internet Data Center Colocation

Analysis By: Ted Chamberlin

Definition: Internet data center colocation is the provisioning of data center facilities along with Internet and private WAN connectivity. Providers may own and provide their network backbone, or provide access to multiple carrier networks. Additional basic services (such as monitoring, remote hands and backup tape rotation) may be offered. Customers can elect to add other managed services if the provider offers them, but the added services would transform a colocation agreement into a managed-hosting agreement.

Position and Adoption Speed Justification: Interest in colocation continues to flourish from extremely slow growth in the immediate post-dot-com era. Colocation has become a viable option for enterprises that require short-term tactical data center space to supplement internal data centers or have postponed data center building projects, as well as for secondary business continuity sites for corporate applications. Pan-European demand for colocation has consistently trailed the U.S., because more European enterprises have embraced managed-hosting models. Growth for colocation in the Asia/Pacific region has been steady but modest.

The continued growth of infrastructure utility services, public and private cloud services, and data center leasing will challenge the growth of retail colocation, because those services act as alternatives to retail colocation. Many providers enjoyed double-digit revenue growth in 2009 and have invested capital to build out additional capacity either in existing facilities or through site acquisition, but will do so only if that capacity is presold. Pricing for space has flattened out in several large cities, with secondary markets experiencing stronger growth due to reasonable rates and space availability. Growth may slow from 2011 through 2014 as more enterprises choose managed or cloud hosting over colocation or engage corporate data center build-outs. Colocation services are now opening up to a new set of use cases in which enterprises would have built data centers but did and or do not have capital.

Colocation providers are continuing to see client power requirements increase substantially as more high-density servers and appliances are utilized. This has required colocation providers to invest their capital in boosting power and cooling capacity and efficiency within the centers, as well as monitoring and limiting allocated power and generator capacity, known as "power rights pricing."

User Advice: Colocation services are experiencing a renaissance of growth, with prices mostly flattening in most global markets as enterprises consider using colocation for disaster recovery and diverse testing environments. As decision criteria, consider location, the quality of the facility (most colocation facilities are built around Uptime Institute Tier 3 and Tier 4 criteria) and its operation staff, availability of network carriers, predictable pricing, the quality of the customer service, and the provider's ability to meet your projected needs for space, power and managed services during at least the next two to three years.

Business Impact: Internet data center colocation provides carrier-grade computing space that involves little or no management. It is frequently used to host event-driven applications or websites, and to house applications that require failover during prolonged instances of downtime.

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Mature mainstream

Sample Vendors: AT&T; Colt; Coresites; Digital Realty Trust; Equinix; Internap; Peak 10; Qwest; Savvis; Telecity; Telx; Terremark Worldwide; Verizon; ViaWest

Data Center Outsourcing

Analysis By: Richard Matlus; Claudio Da Rold; Jim Longwood

Definition: Data center outsourcing is a multiyear, annuity contract or relationship involving the day-to-day management responsibility for operating server or host platforms, including distributed servers and storage. Services include any combination (or all) of professional services and product support, as they relate to the ongoing management of the computing and storage resources.

As a minimum, data center outsourcing contracts always include services encompassed by the computing platform of the operation service segment:

- Help desk management services are included only to the extent that problem determination and resolution are at the computing hardware, infrastructure software or OS software level.
- Application management services are included only to infrastructure software or OS software level.
- Information management software and system management tools may be provided and used by the outsourcer or the enterprise client.
- Services may be provided at a client's site, onshore, "nearshore" or offshore.
- IT assets may be owned by the client, the ESP or a third party.
- Contracts may include the transfer of client employees, IT assets and facilities to the ESP.

The definition of what could be considered data center outsourcing or a subset of data center outsourcing continues to evolve. One of the major catalysts has been provided through vitalization. This technology has allowed the growth of IT industrialization services, such as IT infrastructure utility and "cloud" computing system infrastructure services. These types of service offerings should be considered in the next generation of data center outsourcing services, which

may routinely include various levels of IT industrialization in a client's solution during the next couple of years.

Position and Adoption Speed Justification: Data center outsourcing, is the predecessor to all other types of IT outsourcing and has been around for more than 30 years in one form or another. Since this is a very mature service, most providers base their service delivery and management on ITIL version two or three and ISO 20000.

During the late 1990s to 2004, the general price of data center services decreased to 20% from 15% per year, but this has slowed in more recent years to between 5% and 10%. The range is linked to the different platforms — historically being on the higher side for mainframes and on the lower side for midrange systems — due so far to dedicated configurations and lower use.

In the past year, with the weak economy and the increase of virtualization, global delivery and automation, clients were asking their service providers to find ways to cut costs further to meet clients' pricing expectations and clients were seeking 10% to 20% discounts on existing deals. These expectations were based on the falling cost of hardware and the use of virtualization and alternative delivery models for data center services. Gartner has noted that the pricing dropped between 7% and 14% in 2009.

However to give these discounts, providers sought relief in service levels, use of remote monitoring and support services or an increase in the scope of the work awarded to them, along with contract extensions. Many are also offering virtualized and shared infrastructures, utility hosting services, storage as a service and IU for specific applications (like SAP, collaboration and customer relationship management, for example) as alternative delivery models.

This will reduce costs and move the focus from capital expenditure to operating expenditure (opex) cost structures. As such, we see the data center outsourcing market at a major tipping point, where various data center processing systems will gradually be replaced by new delivery models, such as IU and integration as a service during the next two to five years.

Last year, we indicated there was an increase in the number of clients considering the outsourcing of their data centers. This was attributed to the tight economy and clients' need to upgrade their data center facilities and hardware or add technical skills, even though their capital and operating budgets are limited. They were looking to outsource with the hope of reducing costs, but service providers indicated that while their sales pipeline increased, these new clients were very slow to commit to actual deals, so that actual revenue was below previous years.

This also reflected client focus on cost-saving approaches delivering savings in the short term. To overcome client hesitation, the outsourcing service providers are trying to drive more industrialized solutions that use more standardized and centralized service delivery, which can be further enriched by automation, virtualization and global delivery.

Traditional service providers have enhanced their remote support services, based on what can be done nearshore and offshore. This enables providers to offer reduced costs while maintaining their margins, to address midsize organizations and speed up negotiations, as their services are more standardized. At the same time, providers were not willing to sign any deal heading their way, as in practice, they are very strict on bid qualification.

Providers want to make sure that these new deals make sense over the long term. All these factors contribute to the Time to Plateau being less than two years away for the more traditional outsourcing approaches. In parallel, we are seeing strong drivers for clients to use shared data center services and either consolidate their demand with an external service provider or create a "shared," "bureau" or private utility service facility, such as in government departments, for example.

Several IT initiatives or problems may be catalysts to data center outsourcing:

- **Obsolete or inefficient data centers.** Many clients have data centers that were built in the 1970s or 1980s and they are not energy efficient enough to handle blade and higher-energy rack-mounted processors. These clients are faced with a decision to build a new data center, to lease space, to move to a colocation or hosting arrangement or to look at a full data center outsourcing deal. Since capital budgets are still under deep scrutiny due to economic conditions, the leasing or use of external and more flexible sources is appealing. Last year we saw a fall in revenue, but we expect this to turn around and to see a growth in the number of deals during the next year.
- **Data center consolidation and modernization.** The trend continues for clients to consolidate the number of data centers or platforms. This consolidation may drive the need for new facilities and outsourcing is an alternative to a build decision. Providers have also been consolidating their data centers and this has led to larger and more-efficient centers that often have low attendance, because most operating staff work in low-cost, remote control centers. Additionally, clients often pursue dual data centers, which they can use as a backup in case of a disaster.
- **Accessing IT skills in a global sourcing model.** Clients still have tight budgets and remain unable to hire resources. They are examining various alternative delivery models, such as remote monitoring and support services and if feasible, will consider them as candidates for outsourcing.
- **Deployment of IT infrastructure utility services.** Many of the service providers have or are close to announcing development of industrialized offerings, such as infrastructure utility and cloud computing. These services can lead to more standardized outsourcing arrangements for data center services. Some infrastructure utility providers already claim that 30% or more of their business is based on an industrialized, managed service. We are also seeing telcos pushing hosting facilities and utility service offerings to leverage their investments in existing telecommunications-based data centers.
- **"Green" IT data center awareness.** In the U.S., green IT is generally motivated to the cost saving attributed to adopting energy-efficient assets. However, in Europe and mature IT economies in Asia (such as Australia, Japan, New Zealand and Singapore), green issues are more pronounced and clients continue to focus on data centers and what can be done to improve power optimization, cooling innovation, server re-engineering, new data center construction and CO2 emissions. As for service providers, green IT is accepted as a way to reduce their data center power usage effectiveness and to promote the social benefit to clients.

User Advice: Key advice to users considering data center outsourcing:

- Since cost is still a major driver in 2010, clients need to assess providers' investment in standardized offerings and state-of-the-art green data centers with optimized power and cooling, and the steps they have taken to increase their ability for service portability of processing work.
- Be open minded to alternative delivery models, especially IT utility services, cloud computing and global delivery, but ensure that the offerings meet your business requirements and that providers' pricing schema are clear, comprehensible and backed up by commitment and investments, as well as a sound contractual basis, including good SLAs.

- For global coverage, clients must continue to evaluate providers offering holistic data center services, directly or through partners, with consistent global processes and procedures to deliver quality services.
- When evaluating data center outsourcing service providers, ensure that they have sound service management methodologies, aligned to or based on industry best-practice frameworks and standards, such as ITIL version 2 and version 3, Six Sigma and ISO 20000.

Business Impact: Successful data center outsourcing enables companies to control and reduce IT operations cost, focus on core business initiatives, improve end-user service levels and access critical IT skills, processes, methodologies, infrastructure and global resources of outsourcers. They can also focus IT staff on strategic business projects, shift capital investments in IT to outsourcers and move to an opex-based model, enable scalability of IT applications and improvement of speed to market and provide resources and capacity to match the needs of the business. Use of infrastructure utility-based models also enables end-users to scale down costs in times of lower use, such as the recent global financial crisis.

Benefit Rating: Moderate

Market Penetration: More than 50% of target audience

Maturity: Mature mainstream

Sample Vendors: Accenture; Acxiom; ACS; Atos Origin; Blue Hill Data Services; BT Global Services; Capgemini; CGI; CompuCom; CSC; Datacom; Dell; Fujitsu Technology Solutions; Getronics; HCL Technologies; Hitachi Data Systems; HP; IBM; Logica; Maintech; NCS; NEC; Northrop Grumman; NTT Data; OAO Technology Solutions; Siemens IT Solutions and Services; Steria; SunGard Availability Services; T-Systems; Telefonica; Unisys; Wipro

Recommended Reading:

"Predicts 2010: Future Impacts of Cost Cutting and Cloud in Sourcing IT and Business Process Services"

"Data Center Managed Services: Regional Differences in the Move Toward the Cloud"

"Gartner on Outsourcing, 2009-2010"

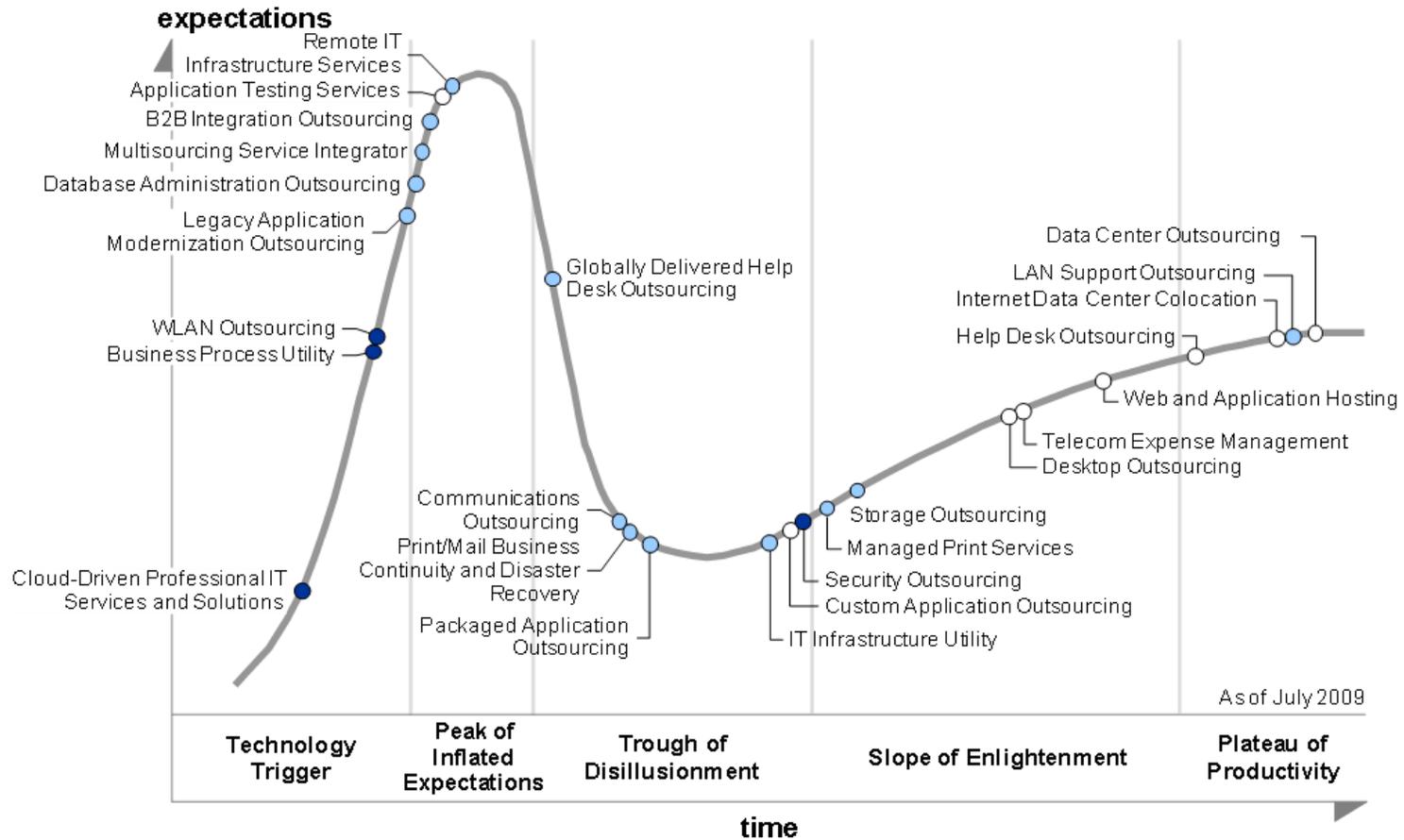
"Market Overview: IT Outsourcing Service Providers, Asia/Pacific, 2009"

"MarketScope for Data Center Outsourcing, North America"

"Toolkit: Data Center IT Services and Outsourcing Pricing, 2009"

Appendixes

Figure 3. Hype Cycle for IT Outsourcing, 2009



Years to mainstream adoption:

- less than 2 years
- 2 to 5 years
- 5 to 10 years
- ▲ more than 10 years
- ⊗ obsolete before plateau

Source: Gartner (July 2009)

Hype Cycle Phases, Benefit Ratings and Maturity Levels

Table 2. Hype Cycle Phases

Phase	Definition
<i>Technology Trigger</i>	A breakthrough, public demonstration, product launch or other event generates significant press and industry interest.
<i>Peak of Inflated Expectations</i>	During this phase of overenthusiasm and unrealistic projections, a flurry of well-publicized activity by technology leaders results in some successes, but more failures, as the technology is pushed to its limits. The only enterprises making money are conference organizers and magazine publishers.
<i>Trough of Disillusionment</i>	Because the technology does not live up to its overinflated expectations, it rapidly becomes unfashionable. Media interest wanes, except for a few cautionary tales.
<i>Slope of Enlightenment</i>	Focused experimentation and solid hard work by an increasingly diverse range of organizations lead to a true understanding of the technology's applicability, risks and benefits. Commercial off-the-shelf methodologies and tools ease the development process.
<i>Plateau of Productivity</i>	The real-world benefits of the technology are demonstrated and accepted. Tools and methodologies are increasingly stable as they enter their second and third generations. Growing numbers of organizations feel comfortable with the reduced level of risk; the rapid growth phase of adoption begins. Approximately 20% of the technology's target audience has adopted or is adopting the technology as it enters this phase.
<i>Years to Mainstream Adoption</i>	The time required for the technology to reach the Plateau of Productivity.

Source: Gartner (July 2010)

Table 3. Benefit Ratings

Benefit Rating	Definition
<i>Transformational</i>	Enables new ways of doing business across industries that will result in major shifts in industry dynamics
<i>High</i>	Enables new ways of performing horizontal or vertical processes that will result in significantly increased revenue or cost savings for an enterprise
<i>Moderate</i>	Provides incremental improvements to established processes that will result in increased revenue or cost savings for an enterprise

Benefit Rating	Definition
<i>Low</i>	Slightly improves processes (for example, improved user experience) that will be difficult to translate into increased revenue or cost savings

Source: Gartner (July 2010)

Table 4. Maturity Levels

Maturity Level	Status	Products/Vendors
<i>Embryonic</i>	<ul style="list-style-type: none"> • In labs 	<ul style="list-style-type: none"> • None
<i>Emerging</i>	<ul style="list-style-type: none"> • Commercialization by vendors • Pilots and deployments by industry leaders 	<ul style="list-style-type: none"> • First generation • High price • Much customization
<i>Adolescent</i>	<ul style="list-style-type: none"> • Maturing technology capabilities and process understanding • Uptake beyond early adopters 	<ul style="list-style-type: none"> • Second generation • Less customization
<i>Early mainstream</i>	<ul style="list-style-type: none"> • Proven technology • Vendors, technology and adoption rapidly evolving 	<ul style="list-style-type: none"> • Third generation • More out of box • Methodologies
<i>Mature mainstream</i>	<ul style="list-style-type: none"> • Robust technology • Not much evolution in vendors or technology 	<ul style="list-style-type: none"> • Several dominant vendors
<i>Legacy</i>	<ul style="list-style-type: none"> • Not appropriate for new developments • Cost of migration constrains replacement 	<ul style="list-style-type: none"> • Maintenance revenue focus
<i>Obsolete</i>	<ul style="list-style-type: none"> • Rarely used 	<ul style="list-style-type: none"> • Used/resale market only

Source: Gartner (July 2010)

^{E6} Gartner sourcing analysts have presented at sourcing events around the globe in the period September to November 2009 and February to June 2010 and have spoken to more than 100 end user organizations and more than 100 providers. On a regular basis, questions addressed global delivery capabilities of providers, concerns and tips and tricks to properly apply or acquire services based on or deploying global delivery.

RECOMMENDED READING

"Understanding Gartner's Hype Cycles, 2010"

"Gartner on Outsourcing, 2009-2010"

"Dataquest Insight: Designing Future Communications Service Provider Pricing Strategies"

"Q&A: The Benefits and Perils of Buying Into the Megavendor Stack"

"Australian Bundled Network Services on the Rise, but the Enterprise Benefits Remain Illusive"

"Marketing Essentials: How to Bundle and Position Unified Communications as a Service to SMB Buyer"

"Predicts 2010: Application Platforms for Cloud Computing"

"Key Trends in ERP and Supply Chain Management, 2010 to 2015"

"Forecast Analysis: IT Outsourcing, Worldwide, 2009-2014, 2Q10 Update"

"Return to Growth: Moving IT to an Offensive Posture for Better Business Alignment"

"Forecast Analysis: Consulting, Development and Integration Services, 2008-2014, 2Q10 Update"

"Outsourcing Contracts Annual Review, 2009: Outsourcing Uptake Continued, but Megadeals Declined"

"Market Share Analysis: Top 10 Consulting Providers' Revenue, Growth and Market Share, Worldwide and Regional, 2009"

"A Successful Outsourcing Strategy Requires a Clear View of Future Market Disruption"

"Dataquest Insight: Outsourcing Forecast Assumptions, Worldwide, 2000-2013, 2Q09 Update"

"SaaS Dynamics Continue to Act as a Catalyst for the Convergence of Services and Software"

"Dataquest Insight: How and Why Telecommunications Carriers Must Pursue Cloud Services Opportunities Now"

This research is part of a set of related research pieces. See "Gartner's Hype Cycle Special Report for 2010" for an overview.

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