Market Guide for AI and Data and Analytics (D&A) Service Providers

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Initiatives: Data and Analytics Programs and Practices; IT Sourcing Strategy Development and Execution

Over 90% of organizations use service providers across their D&A landscape. The landscape's depth and breadth are complex, extensive, uneven and thus difficult to navigate. Buyers should use this research to understand the market dynamics and direction for strategic planning and execution.

Additional Perspectives

 Invest Implications: Market Guide for AI and Data and Analytics (D&A) Service Providers
(30 May 2023)

Overview

Key Findings

- The estimated overall size of the global IT services market is approaching \$1.41 trillion. A subset of that market is D&A services (including AI), which are forecast to exceed \$170 billion in 2023, with a five-year compound annual growth rate of 15.8%. D&A leaders are often challenged when identifying and evaluating AI and D&A service providers because the sheer size of the market has yielded thousands of options spanning many capabilities.
- The D&A and AI service provider markets are fragmented. Gartner estimates that more than 80% of all the service provider options are composed of smaller, midsize, niche and specialty providers (which translates to service providers that have less than \$100 million in annual revenue). This market dynamic is the root cause to one of the biggest challenges identifying the potential service providers that would be most closely aligned to their situational demand.
- The scope of services ranges from strategy to design, deployment and ongoing management. The spectrum of the technology areas is also extensive as it may include configuring packaged applications or custom-built AI or D&A solutions. There are also dozens of other elements of the spectrum for important data services (e.g., curating, cleansing, assembling, modeling, auditing, buying and managing).

Recommendations

Savvy buyers will implement these three strategies:

- Be a Wise Consumer: Understand the market dynamics, motivations and metrics of the service provider organization. Couple the external market dynamics with a prioritized list of business results aligned with the overall enterprise business goals.
- Manage Risk: The main objective or any organization engaging with service providers is to manage risk. There will be pros and cons of choosing any service provider. Therefore, it is critical to identify and actively manage or mitigate the associated risks.
- Prepare for the Journey: Al and D&A initiatives are often iterative, multiphased journeys that cannot be mapped in totality at their outsets. Al and D&A initiatives involve many different technology purchases and, potentially, service providers. This journey of aligning to business outcomes extends beyond a single platform, technology or vendor.

Market Definition

Al applies advanced analysis and logic-based techniques, including machine learning (ML), to interpret events, support and automate decisions, and take actions.

Capabilities for Al include:

- Strategy
- Data engineering (curation, labeling)
- Model development and testing (computer vision, graph, natural language processing [NLP], optimization)
- Operations (ML operations [MLOps], monitoring)
- Governance

D&A is the management of data for all uses (operational and analytical) and the analysis of data to drive business processes and improve business outcomes through more effective decision making and enhanced customer experiences.

Capabilities for D&A include:

- Analytics and business intelligence (BI)
- Data integration
- Data management (and data governance)
- Data quality
- Data science and ML
- Master data management
- Metadata management

Market Description

The global business and IT services market is among the most fragmented across any buying category (hardware, hosting, middleware, software or telecom). There are thousands of service providers. The estimated overall size of the global IT services market is approaching \$1.41 trillion. ¹ A subset of that market is D&A services (including Al). The worldwide D&A services market is forecast to exceed \$170 billion in 2023, with a five-year compound annual growth rate of 15.8%. ²

This makes D&A service providers choices uneven — all service providers are not equal. They vary in depth and breadth, making the landscape complex, extensive, uneven and therefore difficult to navigate. An important clarification is that Gartner's research in this particular arena creates some boundaries for our coverage of D&A service providers. We focus on consulting firms, systems integrators and managed service providers. D&A teams also use many other types of service providers, such as data-specific providers or cloud service providers. All of these are important and critical to the portfolios of many organizations. However, we do not cover them in this research to allow for enough like-kind options to track trends, evaluation criteria and many other areas.

Gartner's long-standing position is that there is no such thing as a "top" or "best" provider. The best provider is in the eye of the beholder. Only the organization making the buying decision can determine the provider best for that enterprise's situational needs. The likelihood of choosing a best provider for the enterprise's specific needs will be amplified by ensuring the clarity of the scope, scale and critical evaluation criteria (i.e., cultural fit, industry, process, technology and intellectual property).

Market Direction

Gartner's expectations for how the market will evolve in the next 12 to 24 months can be characterized by reviewing the following areas:

Buyers' Needs and Behaviors

D&A leaders and teams are experiencing the following challenges:

- Driving Quantifiable Business Value That matters to the business. D&A leaders need guidance to define key measurements of efficiency, efficacy and business agility. Gartner's Chief Data and Analytics Officer Agenda Survey for 2023 showcases that the title chief data and analytics officer (CDAO) is found in only 6% of enterprises. ³ Additionally, the organizational structure, distinction or dedicated resources have not taken a clear shape or consistent look and feel across a large number of D&A personnel within the enterprise. As such, the definition of success and measuring that success through quantifiable business value is still evolving.
- Strategy and Operating Model Many enterprises are challenged to coordinate and manage all the D&A initiatives. Gartner's Chief Data and Analytics Officer Agenda Survey for 2023 reveals that most enterprises are still immature in this arena. The study also reveals that many CDAOs are new in their role: most CDAOs have been in their position less than two years. 3
- Overwhelming Demand (Volume and Speed) D&A teams are often internal service providers to many different lines of business. These subject matter experts in the line of business are keenly aware of specific datasets and the art of the possible for enabling better decision making through all areas of analytics. Furthermore, these D&A resources are often widely distributed across the organization. This has resulted in an overwhelming level of volume of distributed requests (often poorly articulated or defined) and unrelenting need for speed. As such, there are many organizations seeking out service providers due to lack of talent (either volume of people or specific skills). As an example, the various areas of generative Al are driving clients to evaluate prompt engineering skills, data engineering, data scientists, and many other Al-specific skill sets.
- Siloed Business Unit Initiatives The ubiquity of D&A has resulted in extensive demands and various levels of adoption across functions. The common denominator is the incredible volume and velocity of demands for data engineering, data quality and management, as well many other disciplines. This large number of D&A initiatives inside the organization has led to a large array of "siloed" or diffuse directives (scopes of work) with service providers, as well as distinctive purchases of technology tools, solutions and platforms. It has also led to a larger and broader array of multidisciplinary delivery teams across the enterprise, including fusion teams and business technologists. The struggle and critical linchpin is orchestrating the various efforts across the enterprise. Gartner research has shown that siloed or diffuse efforts create lots of issues in areas of data governance, security, skills, response time, reliability and cost to manage and operate.

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- Resilient and Scalable Technical Architecture D&A teams continue to be challenged to design, deploy and manage an ecosystem of technology choices that is supported by a resilient and scalable technical architecture.
- Triggered by Generative AI Hype and Realities The rise of OpenAI (ChatGPT) to 1,000,000 users in five days has triggered many discussions within organizations of their potential use cases for Generative AI as well as other technologies. The combination of hype and realities of the capabilities of these technologies is acting as a catalyst for organizations to seek out service providers. More specifically, organizations seek out the service provider to help with strategy, value proposition, exploring possibilities, proofs of concept and much more. As such, D&A teams will be challenged to be leaders and sources of delivery, collaboration and ongoing evolution of the portfolio of initiatives that are launched in the quest for competitiveness.
- Continued Evolution of Al Trust and Explainability This is an extensive body of research that explores the many facets of D&A teams evolving and maturing a culture that trusts and uses Al to make data-driven or autonomous decisions. One of the biggest organizational demands is that business unit leaders and their teams want high levels of auditability and explainability.

The market direction is showcased by highlighting buyer demands in the form of most frequently demanded areas as follows:

Delivery of Value Within One Fiscal Year — Many service providers have often participated or led efforts within D&A or Al initiatives that ultimately became science projects and proliferation of dashboard or datasets that were unwieldy and lacked alignment to business outcomes. Moreover, they were 18 to 24 months or more. The loudest and most significant buyer feedback that Gartner clients have voiced is the demand for service providers to deliver quantifiable value within one fiscal year (or, preferably, six months). This engenders visibility, trust and synergy among multiple constituencies in the enterprise. Most importantly, it ensures alignment to business outcomes at the functional and enterprisewide level.

- Accelerators and Capabilities The critical success factors to unrelenting need for speed and delivery within one fiscal cycle year are accelerators and capabilities. This is in the form of intellectual assets, configurable tools, codified libraries or modules that truly speed the time to market. They also significantly reduce risk. These tools may be foundational, architecture specific (cloud), functional or industry specific. This category is both the most frequently added evaluation criteria on service provider selections and one of the most difficult to assess. Buyers recognize that narrative RFP responses or slide presentations no longer work to truly compare and contrast service provider value and fit. Rather, many buyers are demanding some form of demonstration and visual approaches combined with portals showcasing repositories and client examples that showcase differentiation among providers.
- Data Availability, Fidelity and Complexity One of the most common mistakes service providers make is assuming data availability, fidelity and complexity levels. All too often, service providers assume starting points of the "state of the data," which causes myriad issues. Essentially, both parties (the enterprise teams and the service providers) realize that there is much work to be done that is out of their scope, and that client resources have neither the time nor skill to deliver. Data-related work is often labor intensive and may not appear as interesting or challenging for the service provider, yet it is the underpinning of all efforts. Most service providers focus on the insights portion rather than the data portion of the effort. This has resulted in a large amount of buyer's remorse.
- Industry and Process Depth Every service category demands an understanding of industry and process to ensure high-value results. D&A and AI initiatives are no different. The ability for a service provider to showcase industry and process depth is a perennial criterion for winning deals.
- Path to Manageable Total Cost of Ownership The three most common points of discussion for milestone meetings of a project include: on time, on budget and on scope. The area that is most often omitted is a critical discussion on the implications of key design and architecture decisions on the ongoing maintenance of the solutions (often referred to as the manage and operate arena). This is often a big area of buyer remorse where the enterprise comes to realize at the very end that the total cost of ownership to maintain, sustain and expand the solution far exceeds budgets. Moreover, the time and skills for the manage and operate area is also far beyond what was assumed or planned.

Assurance and Impact (Experience, Ethics and ESG) — The areas of employee experience, customer experience, ethics, social responsibility, sustainability and many others is a vast area of research that permeates all D&A and Al initiatives to varying degrees. The ability of a service provider to either distinctly drive the analysis and risk management to the enterprise or to ensure that they provide assurances that they comply with the enterprise requirements is a critical success factor for any D&A or Al initiative.

Market Analysis

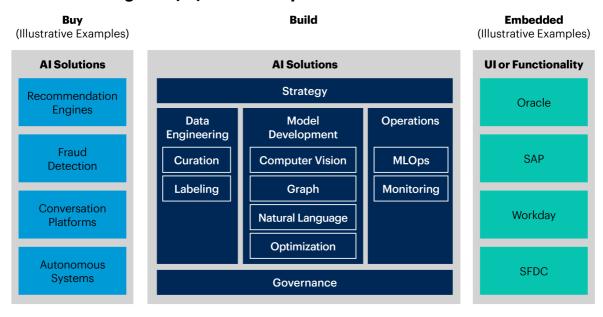
Gartner has delivered research and taken the position that there is no such thing as a no-Al enterprise. This means that there are almost no organizations that do not utilize some form of Al. This may be opaque to certain leaders, or it may not have been a conscious or deliberate initiative, but Al is everywhere. It is embedded in either the UI or the functionality of many of the largest vendor offerings. It is part of many mobile phone applications.

Like Al, D&A is also pervasive in the enterprise. D&A may not always be a distinct or dedicated functional team, but the demand for data driven decision making is an undeniable and irreversible focus of many organizations.

With this in mind, one way to understand the market is to examine the use of AI technologies across the solution landscape of the enterprise. In Figure 1, we depict the three ways that AI may be part of the enterprise portfolio. These can be summarized in "buy," "build" and "embedded." A high-level description of each one follows:

Figure 1: Artificial Intelligence (AI) in the Enterprise

Artificial Intelligence (AI) in the Enterprise



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Buy: Al Solutions. Enterprises may purchase many types of third-party-configurable packaged solutions (from product vendors) that deliver a large percentage of the overall solution or at least provide months or years of a vetted head start. Examples include conversational platforms, recommendation engines and fraud detection. The idea is that a large amount of functionality is purchased in the form of the solution. The service provider is focused on configuring, customizing, enhancing or maintaining it. The degree to which a service provider has a ready-made product for its application area varies greatly. Some specific solutions, such as document processing on standard document types (invoices, contracts, etc.), require less configuration and support. By contrast, solutions for predictive maintenance, for example, require more configuration and support due to the variability in the data and assets being targeted.

- Build: Custom-Built Solutions. Enterprises for which buying from a product vendor is not the appropriate option embark on building their AI solution. Figure 1 depicts the five major areas involved in this approach: strategy; data engineering; model development; operations; and governance. The build options require the expertise of highly skilled data scientists and ML engineers, among many other disciplines. The role of the service providers may vary in scope to a specific portion of the overall build or can involve specialization. One example includes AI techniques such as optimization or graph algorithms. Many service providers and management consultancies have dedicated teams that work with organizations on their AI strategy, including use-case identification and prioritization, organizational readiness, business value definition and innovation. They can also offer services that address governance aspects, such as model auditing, security and responsible AI.
- Embedded: Enterprise Applications. Enterprises have often invested in suite vendor offerings for ERP, CRM, supply chain, procurement, HR and many other functions. At this juncture in the evolution of many of these markets, some form of Al is embedded in the UI, the functionality or both. Many service providers are involved in implementations of these offerings or integration with these enterprise applications.

Industry: Domain-Specific Impacts

Across all of these solutions, it is critical to understand that solutions manifest uniquely across different industries and subsegments of industries. As such, it's increasingly essential to interpret Figure 1 with an industry lens. All service providers recognize and invest in domain-specific resources, accelerators and intellectual property for specific industry segments or business domains. Al solutions often arise from business challenges that are specific to industry verticals. Examples include the use of autonomous robots for warehouse distribution in manufacturing, fraud detection in financial services, and customer intelligence and price optimization for retail and consumer goods companies.

The boundary between these categories can become fuzzy because vendors that have built a product will often partner with other service providers for implementation and customization. Many service providers often try to combine their management consulting domain expertise with technical data science expertise to offer industry-specific solutions, frameworks or accelerators — with varying degrees of success. The value of these options directly targets increasing the speed of the overall effort.

Representative Vendors

The vendors listed in this Market Guide do not imply an exhaustive list. This section is intended to provide more understanding of the market and its offerings.

The Gartner team has developed an extensive vendor identification toolkit that captures profiles for well over 100 service providers across D&A and Al. As such, given the broad array of vendors across geographies, industries and capabilities, a shortlist of vendor names is of limited value. A vendor name along with some objective profile data on the size of vendor in revenue, full-time equivalents, target client base, industry and geography focus is the largest demand of Gartner's clients. As such, Gartner has developed a toolkit (see Toolkit: Vendor Identification and Selection Guide for Al and Data and Analytics (D&A) Service Providers). This toolkit has profiled a large spectrum of providers. This list is not meant to be comprehensive or exhaustive, but it does provide a valuable view of the options landscape.

D&A leaders are often challenged when evaluating AI and D&A service providers because there are thousands of options spanning a variety of capabilities. Some of the parameters of all these options include geographic coverage (country or city specific locations), industry depth, service category, client focus (size of enterprise), technology-specific expertise. Additionally, with such a large market, there are only a relatively small number of vendors with brand names with a high level of unaided name recognition. In fact, there are hundreds of vendors without a well-known brand name.

Vendor Selection

The market is D&A services (inclusive of AI). The worldwide D&A services market is forecast to exceed \$170 billion in 2023, with a five-year compound annual growth rate of 15.8%. ²

The key elements of the market that you need to know as a buyer include:

- Highly fragmented lots of players across a large landscape
- Widely varied depth, breadth, industry and geographic reach

Many service provider markets are fragmented. And the markets for D&A and Al service providers are no exception. Gartner estimates that more than 80% of all the service provider options are composed of smaller, midsize, niche and specialty providers (which translates to service providers that have less than \$100 million in annual revenue). This market dynamic is the root cause of one of the biggest challenges for organizations looking for providers — identifying the potential service providers that would be most closely aligned to their situational demand. For organizations that rely on service providers of all types (including consultants, systems integrators, outsourcers and cloud providers), it is vital that D&A and Al teams find the right partners. Moreover, all of this must be done at a faster pace in today's dynamic environment, meaning it is essential to start at the right place to reduce costly mistakes as part of the overall evaluation and selection process.

Market Recommendations

The most important areas to focus on when strategizing your portfolio and use of D&A or Al service provider include:

- Be a Wise Consumer Understand the market dynamics, the motivations and metrics of the service provider organization. It is important to couple the external market dynamics with a prioritized list of business results aligned with the overall enterprise business goals.
- Manage Risk The main objective or any organization engaging with service providers is to manage risk. There will be pros and cons of any service provider. As such, it is critical to identify and actively manage or mitigate the associated risks. Understanding the structure, dynamics and ecosystem of service provider options is a prerequisite. The clarity that stems from an informed position will help you better manage risk. The most important dynamic to keep in mind is that when you utilize service providers, much of your success is determined by people who don't work for your organization.
- Determine Next Steps Al and D&A teams need to ensure clarity and alignment of their sourcing strategy. Next steps may include evaluating and selecting one or more service providers. If so, it is critical to be clear and concise in capturing and building consensus within your organization on the scope, scale and evaluation criteria for your specific initiative. Align and clearly communicate the expected deliverable in sufficient detail to drive the behavior of the service provider and allow for an enforceable contractual relationship.

Evidence

Recommended by the Authors

Some documents may not be available as part of your current Gartner subscription.

Top Trends in Data and Analytics, 2023

CDAO Agenda 2023: Presence, Persistence and Performance

2023 CDAO Primer: Drive Quantifiable Value With D&A Solutions for the Business

2023 CDAO Primer: Lead a World-Class D&A Organization

TechWave: A Gartner Podcast for IT Leaders | Delivering Data and Analytics Value

The Foundation of an Effective Data and Analytics Operating Model — Presentation

Materials

¹ Gartner Market Databook, 1Q23 Update

² Forecast Analysis: Data and Analytics Services, Worldwide

³ Gartner Chief Data and Analytics Officer Agenda Survey for 2023. This study was conducted to explore and track the business impact of the chief data and analytics officer (CDAO) role and/or the office of the CDAO and the best practices to create a data-driven organization. The research was conducted online from September through November 2022 among 566 respondents from across the world. Respondents were required to be the highest level data and analytics leader in the organization: chief data officer, chief analytics officer, the most senior leader in IT with data and analytics responsibilities, or a business executive such as chief digital officer or other business executive with data and analytics responsibilities. The survey sample was gleaned from a variety of sources (including LinkedIn), with the greatest number coming from a Gartner-curated list of more than 4,499 CDAOs and other high-level data and analytics leaders.

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