IDC MarketScape

IDC MarketScape: Worldwide Application Modernization Services 2023 Vendor Assessment

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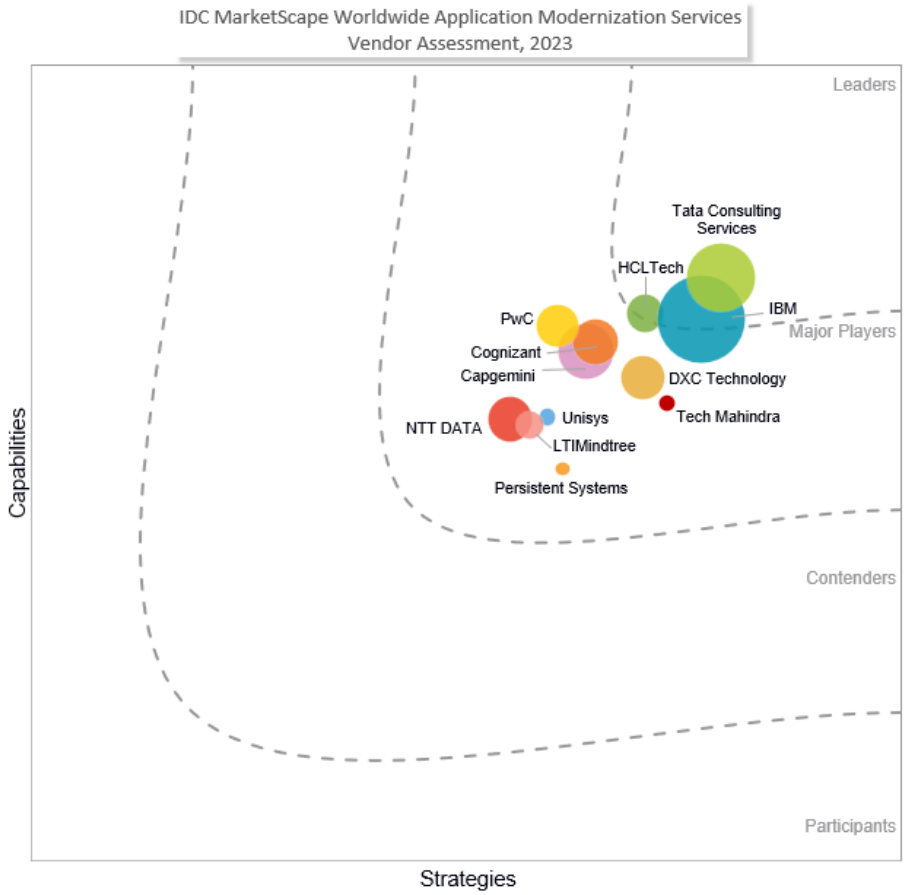
THIS IDC MARKETSCAPE EXCERPT FEATURES: HCLTECH

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Application Modernization Services Vendor Assessment



Source: IDC, 2023

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Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Application Modernization Services 2023 Vendor Assessment (Doc #US51146923e). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

Using the IDC MarketScape model, IDC evaluated 12 third-party organizations that provide application modernization services to enterprises with revenue of $1 billion or more. In an environment where digital transformation and digital business have become enterprise imperatives, IDC found that there is fierce competition in service providers offering application modernization services. Some aspects of the application modernization services market, such as migrating to cloud infrastructure and application instance consolidation, have been fairly mature for quite some time, while other aspects of the application modernization services market, such as migrating legacy applications to software-as-a-service (SaaS) solutions and microservices architecture, have grown more popular.

Using more than 200 criteria and two dozen customer interviews to evaluate providers, IDC found that the application service providers in this evaluation bring deep and differentiated capabilities across a variety of application modernization options. Key differences among the players fell primarily against tendency levels for bundling infrastructure modernization and migration within engagements, including managed security services as part of application modernization engagements, as well as modernizing applications to noncloud environments. With many enterprises focused on making application modernization a top strategic priority today and in the next 24 months, the market for application modernization services is positioned to be robust, and buyer organizations will have a bounty of providers to choose from as well as modernization tactics to consider.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

IDC collected and analyzed data on 12 service providers within its 2023 application modernization IDC MarketScape assessment. While the market arena for application modernization services is rich with suppliers that offer application modernization services, IDC narrowed down the field of players that participated in this research based on the following criteria:

- **Services capability across multifunctional disciplines.** Each service provider was required to possess a wide variety of end-to-end service delivery capabilities that ranged from packaged application upgrades, application instance consolidation, and infrastructure modernization to custom development and application migration.
- **Revenue.** Each service provider was required to have 2022 total revenue (for application modernization services) that eclipsed $400 million.
- **Geographic presence.** Each vendor was required to have services delivery capability (i.e., feet on the ground) and minimum thresholds of revenue generation in each of IDC's three macro-regions: the Americas, EMEA, and APAC.

- **Global head count and regional minimum criteria.** Each vendor was required to have a minimum of 3,000 application modernization services professionals worldwide, as well as IDC-defined thresholds for public cloud certifications across market-leading public clouds.

ADVICE FOR TECHNOLOGY BUYERS

Digital transformation and business resiliency have led many enterprises to embark upon new journeys with their application portfolio management. Strategic shifts in business imperatives and IT imperatives have resulted in application modernization initiatives becoming more critical in unlocking the business value of digital. As a result, the strategic importance of application modernization initiatives is on the rise. The transformational journey that enterprises are embarking upon, as well as their appetite to procure application modernization services has, in turn, sparked significant business opportunities for service providers. While opportunities are robust for application modernization services, the abundance of provider choices and their underlying capabilities has forced application services buyers to wrestle with complex decisions.

The rich landscape of application modernization service providers means buyers can face increasingly complex choices in service provider selection for their application modernization needs. Continued, rapid pace of technology change with web, mobile, and cloud technologies, as well as ongoing risks of legacy and packaged application investments, can complicate corporate financial objectives of minimizing costs, enhancing customer intimacy, and upholding data security. As a result, IDC suggests buyer organizations:

- **Think about application service provider relationships over the long haul.** Before engaging with a service provider to begin discussions over an application modernization initiative, buyers need to think long term about their service provider relationship. In conversations with buyer organizations over lessons learned about their application modernization initiatives, many buyers shared perspectives that their modernization and digital transformation journeys were ongoing, and not simply a limited scope project. Rather, application modernization was a road map of activities and initiatives becoming more embedded in daily operations. To this end, buyers of application modernization services shouldn't approach the strategy and selection process as a one-time exercise. Rather, they should think about the longer-term relationship and service provider positioning as an asset within their organization for a multiyear, operational relationship.
- **Align application modernization needs with provider strengths.** Key to ensuring a successful application modernization initiative is understanding your organization's long-term vision for business transformation, and how applications will play a part in your organization's future state. Buyer organizations need to outline business goals and objectives with application transformation before modernizing their applications. Based on defining initial goals and objectives first, buyer organizations can begin to structure frameworks and define deeper-level requirements to how the business needs to operate to achieve those goals and then understand how applications need to support the future enterprise. Start with a requirements framework that's forged with input from lines of business and IT to outline synergies, dependencies, and complexities. From there, buyers can determine where they may have capabilities to execute against their goals and where they may need to complement those capabilities with third-party expertise to reach their ultimate application modernization objectives.
- **Narrow providers to a short list.** As evidenced through this IDC evaluation, there are plenty of service providers that offer application modernization services geared for enterprises. Though there are differences at more granular levels, delineating among the strengths and weaknesses of each provider can be highly involved and complex because many possess

similar capabilities and delivery methods. Avoid complicating the selection process with vast amounts of providers. It wastes your time as well as the service provider's. To ease the selection process, focus vendor procurement on a distinct few providers and narrow providers down to criteria focused on experience and delivery capability, forward-looking vision and strategy, and, most importantly, cultural fit with your organization.

VENDOR SUMMARY PROFILES

IDC evaluated 12 service providers against more than 200 criteria as part of its IDC MarketScape analysis. As part of the research initiative, IDC also interviewed dozens of buyer organizations — across 13 industries in the United States, Japan, Germany, the Netherlands, Italy, France, and Brazil — to learn about how the organizations were able to generate business value from using service providers to modernize their applications and what their views on vendors strengths were.

HCLTech

HCLTech's capabilities and forward-looking strategy positioned the service provider in the Leaders category in this 2023 IDC MarketScape for application modernization services.

HCLTech offers expansive application modernization services and partners with leading hyperscalers like AWS, GCP, and Azure to provide faster time to market for enterprise customers. The firm offers services across the value chain, including application portfolio analysis, legacy and mainframe modernization, cloud migration, application development, and SaaS and services to support commercial off-the-shelf (COTS) applications from SAP, Oracle, and Microsoft. In addition, HCL provides intellectual property solutions that support application modernization, such as its NextGen Data Modernization Platform, SMART PaaS, Advantage Suite, ASM 2.0, FinOps powered by MyXalytics, DRYICE, and CARE platform. As part of its application modernization capabilities, HCL leverages design thinking using NEXUS, transformation program management, and operations modernization, as well as competencies in FinOps, and integrated IT operations (IIOPS). The firm's solution-led approach enables enterprises to fast-track their application modernization initiatives and drive outcomes at speed and scale. The overarching application modernization services HCLTech takes to market include application portfolio analysis and optimization, legacy modernization, mainframe modernization, cloud migration, application decommissioning and archival, modern application development, and SaaS and COTS services. HCLTech also offers transformation program management and organization change management as part of its application modernization services. Its team of design thinkers and industry process experts help customers break down barriers by combining deep knowledge of business processes with user-centered design principles. HCLTech's end-to-end application modernization services focus on cloud-native approaches for maximizing business value and accelerating digital transformation to address business-specific objectives. It brings ready-to-consume industry cloud solutions through hyperscalers, combining the power of convergence across IT, engineering services, and industry IP leveraging Cloud Smart as a forward-facing cloud strategy governed by business objectives.

HCLTech possesses a range of automation capabilities with its application modernization services, with particular focus in automating infrastructure provisioning and management. The provider supports a variety of industry verticals with its application modernization services with particular focus on industries like financial services, life sciences, healthcare, manufacturing, and high tech.

Strengths

HCLTech's key strengths in application modernization services fell under IDC's *offering*, *portfolio benefits*, *public cloud certification,* and *ISV skills and talent* categories. One of HCLTech's strengths is

within IDC's offering category for its high percentage of engagements where the provider included consulting and experience design services as part of its modernization services. The provider also earned high ratings for IDC's portfolio benefits category — for the percentage of client engagements where the provider utilized artificial intelligence, DevOps, containers, and analytics as part of its modernization services. Against IDC's public cloud certification category, HCLTech exceeded industry benchmarks for talent certified on IBM and Alibaba, as well as AWS, GCP, Azure, and Oracle. Against IDC's ISV skills and talent category, HCLTech exceeded benchmarks for the percentage of modernization staff dedicated to modernizing Microsoft, SAP, and Oracle applications. Client feedback revealed that HCLTech's strengths centered on providing strong teams that were well connected within enterprise modernization efforts and possessed institutional knowledge of legacy environments. Clients also added that HCLTech was professional, had superb communication skills, and possessed a deep body of previous experience in modernization that the clients could leverage.

Challenges

One area where IDC discovered HCLTech trailed benchmarks was against IDC's *application modernization tactics* category. IDC found the relative percentage of application modernization engagements where consolidating application instances as well as migrating existing, custom-built legacy applications into new, custom applications built on newer development technologies trailed industry benchmarks.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

The IDC MarketScape vendor assessment represents IDC's opinion on key vendors that not only possess the key capabilities today to serve customer needs in application modernization services but also possess the strategies to serve evolving customer needs in the next few years. As part of the IDC MarketScape model, IDC defines measures for success by two primary categories:

- **Capabilities.** Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well it is aligned to customer needs. The capabilities category focuses on the capabilities of the company and services today. In this category, IDC reviews how well a vendor is building, pricing, positioning, and/or delivering services capabilities that enable it to

execute its chosen strategy in the market. On the y-axis, a position toward the top (north of center) indicates a strong set of differentiated capabilities to be successful in today's market.

- **Strategy.** Positioning on the x-axis, or strategy axis, indicates how well the vendor's future strategy aligns with what customers will require in the next few years. The strategy category focuses on high-level strategic decisions and underlying assumptions about road maps for service offerings, customer segmentation, business, and go-to-market plans for the next few years. In this category, IDC reviews whether or not a vendor's strategy in various areas are aligned with projected customer requirements. On the x-axis, a position toward the right (east of center) indicates a strategy that is not only well aligned with customer requirements but also agile and differentiated from the pack.

The IDC MarketScape figure (refer back to Figure 1) shows each vendor's position in the vendor assessment chart. Vendor market share is represented by the size of the circles.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of a review board of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Scoring Scale Criteria and Definitions

IDC's *Application Services Survey,* conducted in 4Q22, helped shape many of the scoring scale criteria and definitions in the IDC MarketScape for application modernization services. The survey probed buyers on maturity levels, interests, and preferences for a variety of application modernization services. The survey findings highlighted several key areas where buyers expect application modernization service providers to possess and excel at a range of capabilities. IDC utilized that survey data to help structure and shape evaluation scoring. In addition, results of the survey influenced criteria weightings for various categories reviewed in the evaluation.

Service Provider Customer Interviews

As part of this IDC MarketScape, IDC conducted interviews with vendor-provided client references. IDC utilized these customer interviews to learn about six areas: the customers' project backgrounds, how customers approached the service provider selection process and what critical criteria they used to select their vendors, what sort of results customers were able to generate from their application modernization initiatives, next steps for their application modernization activities, key lessons learned, and what customers felt were the differentiating and key strengths their chosen application modernization service provider possessed. IDC then leveraged the results of the interviews to establish weighting scales that were most meaningful to the feedback customers gave.

Weightings

Criteria weightings used in this IDC MarketScape were sourced and derived primarily through the customer interviews IDC conducted as well as through recent IDC surveys. The customer interviews revealed multiple criteria that buyer organizations cited as critical in their service provider selection

processes and IDC's survey findings showcased which modernization tactics enterprises most wanted support from third-party service providers. IDC distilled and consolidated the criteria customers shared into several major categories and weighted criteria based on volume of responses within the categories across the IDC MarketScape model. In addition, because many of the aspects of the application modernization services market are mature and many of the providers bring similar strategies as well as capabilities in delivering their services, IDC applied slightly heavier weightings to IDC MarketScape strategy criteria to separate how each provider intends to enhance competitiveness and differentiate and capitalize on future services opportunities.

This application modernization services assessment is designed to evaluate the characteristics of each firm and each firm's global presence, measured by head count and share of vendor revenue coming from IDC-defined macro-regions. Many specialty technology services organizations, digital agencies, as well as traditional consulting services firms compete in various elements of the application modernization services market. As such, this evaluation is not an exhaustive list of all the players to consider for a particular project in each and every phase of the application modernization and digital transformation journey cycle. Instead, this evaluation reviews the primary players that offer capabilities spanning the end-to-end requirements definition, design, development, testing, and release of modernized applications that are part of digital transformation. Factors like business and information technology (IT) objectives, business and IT requirements, and the business and IT culture of an organization play integral roles in determining which firms should be considered as potential candidates for an application modernization services engagement, as well as a longer-term application outsourcing agreement.

Market Definition

Application Modernization Services

Application modernization services are services geared toward transforming an organization's existing business application to newer, up-to-date technologies that enhance the application's utility and value to its intended users and consumers. While many aspects of application modernization services are mature, there are some elements of modernization services delivery that are budding. Application modernization services can revolve around a variety of areas that include:

- **Infrastructure modernization.** These services center on upgrading the underlying infrastructure supporting applications and re-host or re-platform legacy or older packaged applications to newer infrastructure (i.e., cloud, virtual infrastructure).
- **Packaged application upgrades.** These services center on upgrading existing packaged applications (e.g., SAP, Oracle) to the most recent or newer packaged application release.
- **New custom development using modern technologies.** These services center on migrating custom-developed legacy applications (e.g., COBOL) into a new custom application built on newer development languages (e.g., open source, Ruby, Python).
- **Custom application to packaged application migration.** These services center on migrating existing custom-developed applications (e.g., COBOL, Java) to commercially available packaged applications (e.g., Oracle, SAP, Microsoft Dynamics).
- **Migration to SaaS.** These services center on migrating existing custom developed (e.g., COBOL, Java) and/or packaged applications (e.g., SAP, Oracle, Microsoft) to a SaaS- or cloud-based application.
- **SOA.** These services center on migrating existing applications (custom and/or packaged) to more modular service-oriented architecture (SOA) containers and microservices.

- **Instance consolidation.** These services center on consolidating application instances — whether custom developed (e.g., COBOL, Java), packaged, and/or cloud (e.g., SaaS).
- **New custom development using existing technologies.** These services center on developing new application code to extend the life and utility of existing custom-coded applications and/or packaged applications.

Exceptions and Exclusions

Application modernization services, as evaluated in this study, reviewed full, end-to-end services delivery. While consulting and advisory activities are often elements of application modernization as it pertains to digital transformation, this study does not provide a deep analysis or assessment of the IT consulting or systems integration components of application modernization services. Rather, the assessment tends to focus more on modernization services that typically accompany those within custom application development and application management engagements, as well as ongoing application managed services.

Situation Overview

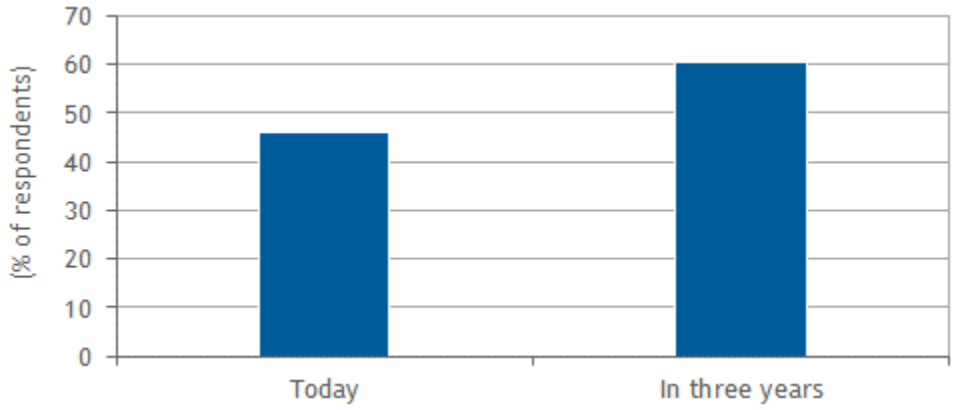
Digital transformation has emerged to be a key initiative for many enterprises. To this end, application modernization has surfaced to be a core component and enabler of enterprise digital transformation and a major element within the enterprise journey toward digital business. From upgrading underlying application infrastructure to migrating legacy applications to newer technology platforms, the term *application modernization* has evolved to take on a wide set of meanings. In addition, expanding application portfolios, as well as enterprise needs to be quicker and more flexible in responding to customers' and prospects' needs, have accelerated digital priorities and therewithin, imperatives to modernize applications. IDC has observed that:

- **Enterprises push further to host applications on cloud.** IDC has found that organizations have 46% of their application portfolio hosted on cloud today, and within the next three years, they anticipate that more than 60% of their application portfolios will be hosted on cloud (see Figure 2). The growth in cloud adoption is driven by multiple factors, including enterprise resiliency, customer intimacy, and improved financial management.
- **Application modernization priorities are on the rise.** According to results of IDC's 4Q22 *Application Services Survey,* 62% of organizations rated application modernization as a top priority today, with more than 70% rating application modernization a top priority in the next two to three years (see Figure 3). Over the next 36 months, activities like upgrading packaged applications, migrating existing custom applications to packaged applications, developing new application code to extend the life of existing custom-coded applications, and upgrading the infrastructure supporting applications will grow more important as part of enterprise business and IT agendas, and will be tactics organizations will most likely pursue in the next 24 months to achieve their business and IT goals.
- **Buyers seek providers with SaaS and modern application delivery expertise.** IDC's *Application Services Survey* found that when it comes to modernizing applications, organizations have varied preferences for capabilities that third-party services providers should possess. However, competencies in SaaS and modern application delivery stand out as most coveted (see Figure 4).

FIGURE 2

Application Portfolio on Cloud — Currently and in Three Years

Q. Approximately what percentage of your organization's application portfolio would you estimate is hosted in a cloud environment today, and what percentage of your organization's application portfolio would you estimate will be hosted in a cloud environment in three years?



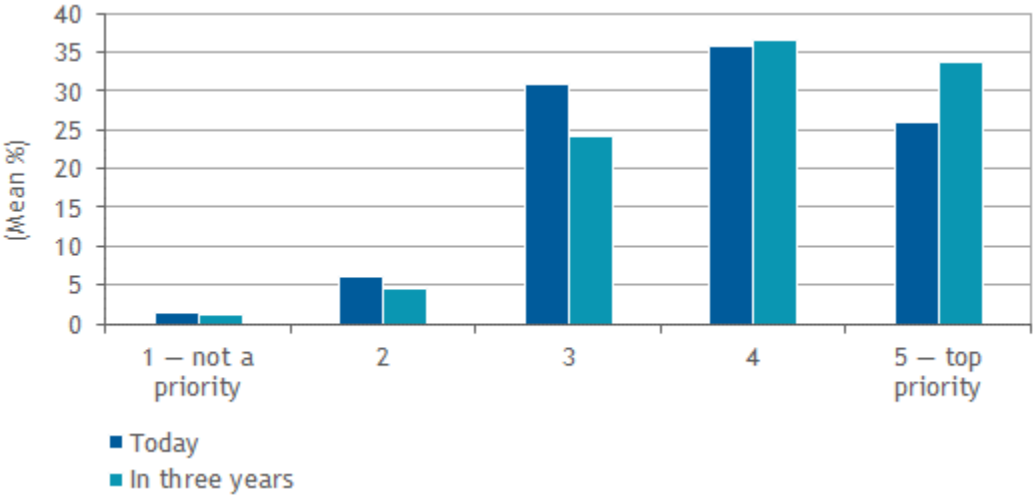
n = 702

Source: IDC's *Application Services Survey,* 4Q22

FIGURE 3

Priority of Application Modernization

Q. How would you rank application modernization as a strategic priority within your organization today and in the next three years?



n = 702

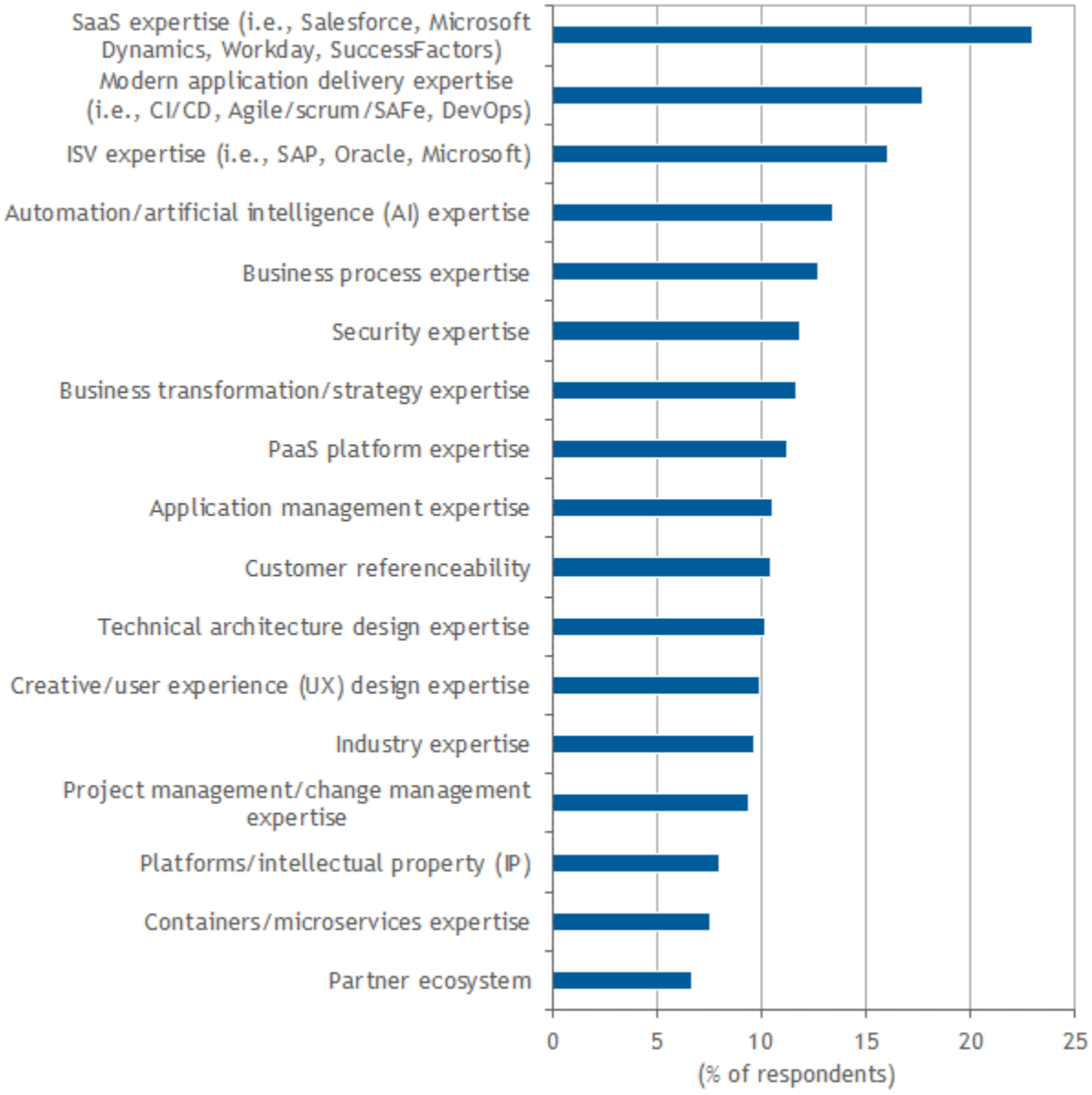
Note: Scores are based on a scale of 1 to 5 (where 1 = modernization is not a priority and 5 = modernization is a top priority).

Source: IDC's *Application Services Survey,* 4Q22

FIGURE 4

Top Application Modernization Capabilities

Q. What top 2 capabilities do you believe your organization considers most important for third-party service providers to possess to support application modernization for your organization?



n = 702

Source: IDC's *Application Services Survey,* 4Q22

Strategies and Capabilities Criteria

This section includes an introduction of market-specific weightings definitions and includes a weightings table (see Table 1).

The application modernization services market exhibits the key aspects that suppliers must take into consideration when crafting a future strategy and in leveraging existing capabilities to best advantage. The factors were weighted because IDC believes that some are more important than others in maximizing market opportunity and realizing market success (see Table 2).

IDC believes application modernization services providers must exhibit the characteristics shown in Tables 1 and 2 to be completely successful when crafting a future strategy and in leveraging existing capabilities to their best advantage. Weightings factored differently among criteria because IDC customer interviews indicated some criteria being more important than others, as described by services customers when they recapped their vendor selection processes.

TABLE 1

Key Strategy Measures for Success: Worldwide Application Modernization Services

Strategies Criteria	Definition	Weight (%)
Functionality or offering road map	▪ Criterion reviews strategy for application modernization services in the future.	3.0
Cloud mix	▪ Criterion examines the strategic intent of how much of the vendor's application modernization business will be centered on modernizing client applications to public clouds (i.e., AWS, Azure, Google, IBM) in the next five years. ▪ Criterion examines the strategic intent of how much of the vendor's application modernization business will be centered on modernizing client applications to private clouds (i.e., Atos, Fujitsu, IBM, NTT DATA, Rackspace). ▪ Criterion examines the strategic intent of how much of the vendor's application modernization business will be centered on modernizing client applications to hybrid clouds (i.e., private and public cloud, or cloud and noncloud).	9.0
Public cloud certifications	▪ Criterion reviews the percentage of employees in application modernization services the vendor plans to have certified on AWS. ▪ Criterion reviews the percentage of employees in application modernization services the vendor plans to have certified on GCP. ▪ Criterion reviews the percentage of employees in application modernization services the vendor plans to have certified on Azure. ▪ Criterion reviews the percentage of employees in application modernization services the vendor plans to have certified on Alibaba public cloud. ▪ Criterion reviews the percentage of employees in application modernization Services the vendor plans to have certified on IBM public cloud. ▪ Criterion reviews the percentage of employees in application modernization services the vendor plans to have certified on Oracle public cloud. ▪ Criterion reviews the percentage of employees in application modernization services the vendor plans to have certified on other public clouds.	19.0

TABLE 1

Key Strategy Measures for Success: Worldwide Application Modernization Services

Strategies Criteria	Definition	Weight (%)
Workloads — strategy	▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing collaboration applications (e.g., conferencing, email, social networks, file sharing) to any type of cloud (i.e., public, private, hybrid) in the future. ▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing content applications (e.g., ECM, cognitive platforms, enterprise portals, authoring and publishing) to any type of cloud (i.e., public, private, hybrid) in the future. ▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing ERP applications (e.g., financials, HCM, procurement, order management, asset management) to any type of cloud (i.e., public, private, hybrid) in the future. ▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing SCM applications (e.g., logistics, production planning, inventory management) to any type of cloud (i.e., public, private, hybrid) in the future. ▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing operations applications (e.g., service operations, manufacturing) to any type of cloud (i.e., public, private, hybrid) in the future. ▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing engineering applications (e.g., CAD, CAE, CAM) to any type of cloud (i.e., public, private, hybrid) in the future. ▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing CRM applications (e.g., sales, marketing, customer service, contact center) to any type of cloud (i.e., public, private, hybrid) in the future. ▪ Criterion reviews the relative percentage of total application modernization business that is modernizing analytics, RPA, and artificial intelligence (AI) applications (e.g., Microsoft Power BI, SAP Leonardo, Salesforce Einstein, Qlik, BluePrism, Workfusion, SAS, Tableau, IBM Watson) to any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business that will be modernizing "other" applications to any type of cloud (i.e., public, private, hybrid) in the future.	25.0

TABLE 1

Key Strategy Measures for Success: Worldwide Application Modernization Services

Strategies Criteria	Definition	Weight (%)
Delivery model strategy	▪ Criterion reviews the strategic intent of how much of the vendor's application modernization services will be delivered in the next five years at the client site or through domestic delivery centers and/or locations. ▪ Criterion reviews the strategic intent of how much of the vendor's application modernization services will be delivered in the next five years using offshore delivery centers and locations. ▪ Criterion reviews the strategic intent of how much of the vendor's application modernization services will be delivered in the next five years through near shore delivery centers and locations. ▪ Criterion reviews the estimated amount of application modernization services engagements where your organization will use artificial intelligence to support services delivery. ▪ Criterion reviews the strategy for implementing predictive analytics as part of services and/or SLAs to spot potential application issues and risks and proactively address. ▪ Criterion reviews the strategic intent for using DevOps and/or agile as part of application modernization services delivery in the next five years. ▪ Criterion reviews the strategic intent of using Kubernetes and/or containers/microservices as part of application modernization services delivery in the next five years.	21.0
Infrastructure bundling strategy	▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) where infrastructure modernization and migration services will be bundled as part of application modernization service delivery in the next five years. ▪ Infrastructure modernization can include initiatives like migrating to public cloud, migrating to private cloud, migrating to hybrid cloud.	3.0
Scalability strategy	▪ Criterion reviews the strategy for providing application modernization services to modernize applications that support up to 1,000 users. ▪ Criterion reviews the strategy for providing application modernization services to modernize applications that support between 1,000 and 10,000 users. ▪ Criterion reviews the strategy for providing application modernization services to modernize applications that support more than 10,000 users.	9.0
R&D strategy	▪ Criterion reviews the strategy for increasing/decreasing R&D spend (or remaining the same) for application modernization services in the future. ▪ Criterion reviews the strategy for innovation and R&D investment for application modernization services.	5.0

TABLE 1

Key Strategy Measures for Success: Worldwide Application Modernization Services

Strategies Criteria	Definition	Weight (%)
Time to value	▪ Criterion reviews the strategy for service delivery time to value.	3.0
Customer experience strategy	▪ Criterion reviews the overarching strategy for providing customers with exceptional customer experience through application modernization services.	3.0
Total		100.0

Source: IDC, 2023

TABLE 2

Key Capability Measures for Success: Worldwide Application Modernization Services

Capabilities Criteria	Definition	Weight (%)
Functionality or offering	▪ Criterion reviews the service provider's overarching application modernization services offering. ▪ Criterion reviews the service provider's culture and values for application modernization services. ▪ Criterion reviews the service provider's relative proportion of overall application modernization services portfolio that has been modernizing applications to noncloud environments (i.e., on-premises, traditional infrastructure). ▪ Criterion reviews the proportion of application modernization services engagements that includes advisory and modernization strategy services as part of technical service delivery. ▪ Criterion reviews the proportion of application modernization services engagements that includes experience design services as part of modernization service delivery.	5.0
Front-/back-office mix	▪ Criterion reviews the relative distribution of application modernization services against modernizing front-office and back-office applications.	1.0

Application modernization tactics	▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on upgrading packaged applications to their newest, most recent version (i.e., SAP R3 to S/4 HANA; Oracle EBS 11i to R12). ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on modernizing mainframe applications (i.e., COBOL, Assembler, FORTRAN). ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on migrating custom-built applications (i.e., Java, .NET, Perl, HTML) to packaged applications (like SAP, Microsoft, Oracle). ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on developing new application code to prolong the life of existing custom-coded, legacy applications (i.e., mainframe: COBOL, FORTRAN) or existing packaged applications. ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on upgrading the application environment to cloud-based/virtualized infrastructure. ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on consolidating application instances. ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on migrating existing applications (custom-built legacy/mainframe applications and/or packaged applications like SAP, Oracle, Microsoft) to one or multiple SaaS applications (i.e., salesforce, Microsoft Dynamics Online, RightNow, Workday, NetSuite). ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on migrating existing, custom-built legacy applications (i.e., COBOL, C#, FORTRAN) into new, custom applications built on newer development technologies (i.e., Ruby, Java, PHP, .NET). ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on creating a services/microservices/containers architecture. ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on an "other" modernization technique not identified above. ▪ Criterion examines the relative percentage of application modernization engagements where services delivered focused on a combination (i.e., more than one) modernization technique identified above.	11.0

TABLE 2

Key Capability Measures for Success: Worldwide Application Modernization Services

Capabilities Criteria	Definition	Weight (%)
Application modernization to public, private, and hybrid clouds	▪ Criterion examines the percentage of application modernization business (based on number of deals) that has been centered on modernizing client applications to public clouds (i.e., AWS, Azure, Google, IBM). ▪ Criterion examines the percentage of application modernization business (based on number of deals) that has been centered on modernizing client applications to private clouds (i.e., Atos, Fujitsu, IBM, NTT DATA, Rackspace). ▪ Criterion examines the percentage of application modernization business (based on number of deals) that has been centered on modernizing client applications to hybrid clouds (i.e., private and public cloud, or cloud and noncloud). ▪ Criterion examines the percentage of application modernization business (based on number of deals) that has been centered on re-patrioting applications from public cloud to private cloud, hybrid cloud, or noncloud environments.	4.0
Infrastructure modernization bundling	▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) where infrastructure modernization and migration services were bundled as part of application modernization service delivery in the next five years. Infrastructure modernization can include initiatives like migrating to public cloud, migrating to private cloud, migrating to hybrid cloud.	1.0

TABLE 2

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Capabilities Criteria	Definition	Weight (%)
Workloads	▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing collaboration applications (e.g., conferencing, email, social networks, file sharing) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing content applications (e.g., ECM, cognitive platforms, enterprise portals, authoring and publishing) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing ERP applications (e.g., financials, HCM, procurement, order management, asset management) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing SCM applications (e.g., logistics, production planning, inventory management) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing operations applications (e.g., service operations, manufacturing) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing engineering applications (e.g., CAD, CAE, CAM) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing CRM applications (e.g., sales, marketing, customer service, contact center) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing analytics, RPA, and artificial intelligence (AI) applications (e.g., Microsoft Power BI, SAP Leonardo, Salesforce Einstein, Qlik, BluePrism, Workfusion, SAS, Tableau, IBM Watson) on any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing "other" applications to any type of cloud (i.e., public, private, hybrid).	9.0

TABLE 2

Key Capability Measures for Success: Worldwide Application Modernization Services

Capabilities Criteria	Definition	Weight (%)
ISV	▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing SAP applications to any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing Oracle applications to any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing Microsoft applications to any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing Adobe applications to any type of cloud (i.e., public, private, hybrid). ▪ Criterion reviews the relative percentage of total application modernization business (based on number of deals) that has been modernizing "other" packaged applications not identified above (i.e., Avaya, Cisco, IBM).	5.0
Public clouds	▪ Criterion reviews percentage of application modernization services business (based on number of deals) that has been centered on modernizing applications to AWS. ▪ Criterion reviews percentage of application modernization services business (based on number of deals) that has been centered on modernizing applications to Microsoft Azure. ▪ Criterion reviews percentage of application modernization services business (based on number of deals) that has been centered on modernizing applications to Google Cloud Platform. ▪ Criterion reviews percentage of application modernization services business (based on number of deals) that has been centered on modernizing applications to Alibaba. ▪ Criterion reviews percentage of application modernization services business (based on number of deals) that has been centered on modernizing applications to IBM public cloud. ▪ Criterion reviews percentage of application modernization services business (based on number of deals) that has been centered on modernizing applications to Oracle public cloud. ▪ Criterion reviews percentage of application modernization services business (based on number of deals) that has been centered on modernizing applications to public clouds other than AWS, Azure, GCP, Alibaba, Oracle, and IBM.	7.0

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Key Capability Measures for Success: Worldwide Application Modernization Services

Capabilities Criteria	Definition	Weight (%)
Delivery model	▪ Criterion reviews the relative percentage of engagements (based on number of deals) to date that have been delivered as a project service engagement. ▪ Criterion reviews the relative percentage of engagements (based on number of deals) to date that have been delivered as a managed service engagement. ▪ Criterion reviews the relative percentage of application modernization services engagements where services were delivered on the client site or through domestic delivery centers and/or locations. ▪ Criterion reviews the relative percentage of application modernization services engagements where services were delivered off the client site. ▪ Criterion reviews the relative percentage of application modernization services engagements where services were delivered off the client site, but at a nearshore location.	5.0
Portfolio benefits	▪ Criterion reviews the estimated proportion of application modernization services engagements (based on number of deals) where your organization uses artificial intelligence to support services delivery. ▪ Criterion reviews the estimated proportion of application modernization services engagements (based on number of deals) where your organization uses DevOps and/or agile to deliver its application modernization services. ▪ Criterion reviews the relative percentage of engagements (based on number of deals) where services include use of Kubernetes and/or containers/microservices as part of application modernization services delivery. ▪ Criterion reviews the percentage of application modernization services engagements (based on number of deals) where predictive analytics have been employed as part of services and/or SLAs to spot potential application issues and risks and proactively modernized. ▪ Criterion reviews the total number of reusable assets that have been created for application modernization services. ▪ Criterion reviews the estimated utilization rate of all reusable assets that have been created for application modernization services. ▪ Criterion reviews the relative percentage of reusable assets/accelerators that have been created for SaaS. ▪ Criterion reviews the relative percentage of reusable assets that have been created for packaged application upgrades (i.e., SAP, Oracle, Microsoft). ▪ Criterion reviews the relative percentage of reusable assets that have been created for employing a services oriented architecture (SOA) or middleware.	9.0

TABLE 2

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Capabilities Criteria	Definition	Weight (%)
Security	▪ Criterion reviews the relative percentage of engagements (based on number of deals) where managed security services are bundled or embedded as part of application modernization services engagements.	1.0
Scalability	▪ Category reviews ability to support varied application user bases for applications that support under 1,000 users, between 1,000 and 10,000 users, and over 10,000 users.	1.0
Partnerships	▪ Category reviews how the service provider approaches its partner ecosystem and mix of partnerships across services and software.	1.0
Delivery centers	▪ Category reviews the number and distribution of delivery centers utilized in application modernization services delivery.	1.0
R&D	▪ Criterion reviews the total number of employees dedicated to R&D for application modernization services. ▪ Criterion reviews the relative percentage of total application modernization services SG&A dedicated to R&D for application modernization services.	2.0
Employee head count	▪ Criterion reviews the total number of employees dedicated to application modernization services across cloud platforms and applications.	1.0
Public cloud certification	▪ Criterion reviews the percentage of employees in application modernization services certified on AWS. ▪ Criterion reviews the percentage of employees in application modernization services certified on GCP. ▪ Criterion reviews the percentage of employees in application modernization services certified on Azure. ▪ Criterion reviews the percentage of employees in application modernization services certified on Alibaba public cloud. ▪ Criterion reviews the percentage of employees in application modernization services certified on IBM public cloud. ▪ Criterion reviews the percentage of employees in application modernization services certified on Oracle public cloud. ▪ Criterion reviews the percentage of employees in application modernization services certified on other public clouds.	7.0

TABLE 2

Key Capability Measures for Success: Worldwide Application Modernization Services

Capabilities Criteria	Definition	Weight (%)
ISV skills and talent	▪ Criterion reviews the percentage of employees in application modernization services dedicated to modernizing SAP applications. ▪ Criterion reviews the percentage of employees in application modernization services dedicated to modernizing Oracle applications. ▪ Criterion reviews the percentage of employees in application modernization services dedicated to modernizing Microsoft business applications. ▪ Criterion reviews the percentage of employees in application modernization services dedicated to modernizing other packaged business applications.	4.0
Talent mix	▪ Criterion reviews the relative percentage of employees in application modernization services that possess predominantly advisory/consulting/application transformation skills. ▪ Criterion reviews the relative percentage of employees in application modernization services that possess predominantly application delivery skills.	2.0
Pricing model	▪ Criterion reviews the relative percentage of application modernization services engagements that are sold to clients on a fixed price basis. ▪ Criterion reviews the relative percentage of application modernization services engagements that are sold to clients on a T&M basis. ▪ Criterion reviews the relative percentage of application modernization services engagements that are sold to clients on an outcome-based pricing basis.	3.0
Contract structure and terms	▪ Criterion reviews duration (in months) it typically takes to develop proposal/contract and close application modernization services engagements. ▪ Criterion reviews minimum contract length (in months) that the organization has engaged with clients for application modernization services. ▪ Criterion reviews average contract duration (in months) for application modernization services. ▪ Criterion reviews average deal size ($M) for overall application modernization services on public cloud. ▪ Criterion reviews average deal size ($M) for overall application modernization services on private cloud. ▪ Criterion reviews average deal size ($M) for overall application modernization services on hybrid cloud.	7.0

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Key Capability Measures for Success: Worldwide Application Modernization Services

Capabilities Criteria	Definition	Weight (%)
Financial/funding management	▪ Criterion reviews total revenue ($M) for last trailing 12 months that are for managing applications on any type of cloud (i.e., public, private, and/or hybrid). ▪ Criterion reviews recent sales growth performance over the past three years. ▪ Criterion reviews the profitability of the application modernization services practice over the past three years. ▪ Criterion reviews estimated revenue percentage for last trailing 12 months in the Americas region. ▪ Criterion reviews estimated revenue percentage for last trailing 12 months in the EMEA region. ▪ Criterion reviews estimated revenue percentage for last trailing 12 months in the APAC region.	6.0
Customers	▪ Criterion reviews the total number of clients that are currently using application modernization services. ▪ Criterion reviews the percentage of clients that have revenue in excess of $50 billion and are currently using application modernization services. ▪ Criterion reviews the percentage of clients that have revenue between $10 billion and $50 billion and are currently using application modernization services. ▪ Criterion reviews the percentage of clients that have revenue between $1 billion and $10 billion and are currently using application modernization services. ▪ Criterion reviews customer satisfaction ratings from customer interviews.	7.0
Total		100.0

Source: IDC, 2023

LEARN MORE

Related Research

- *The Metrics That Matter for Modern Application Delivery* (IDC #US50423723, March 2023)
- *Application Modernization Standardization – Worldwide, 2023* (IDC #US50168023, February 2023)

- *IDC Survey Spotlight: Application Modernization Standardization — Industries, 2023* (IDC #US50167923, February 2023)
- *IDC Survey Spotlight: Application Modernization Standardization — United States, 2023* (IDC #US50038116, February 2023)
- *Application Modernization Standardization — Worldwide Regions, 2023* (IDC #US50038016, January 2023)
- *Worldwide Application Services, 2023* (IDC #US50037816, January 2023)
- *Market Analysis Perspective: Worldwide Intelligent Application Services, 2022* (IDC #US49621620, September 2022)
- *Worldwide Application Management Services Forecast, 2022-2026* (IDC #US49031122, May 2022)

Synopsis

This IDC study represents a vendor assessment of providers offering enterprise application modernization services through the IDC MarketScape model. The assessment reviews both quantitative and qualitative characteristics that define current market demands and expected buyer needs for application modernization services. The evaluation is based on a comprehensive and rigorous framework that assesses how each vendor stacks up against the defined scoring criteria, and the framework highlights the key factors that are expected to be the most significant for achieving success in the application modernization services market over the short and long terms.

"Modernizing applications has grown to be a major enterprise initiative and organizations are hard at work transforming their applications portfolios to build business agility and achieve digital transformation and business objectives. Many early adopters of application modernization services have achieved business benefits from their modernized applications, and those successes have sparked other enterprises to make application modernization a higher priority within their business transformation imperatives." — Peter Marston, research director, Worldwide Intelligent Application Services at IDC

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