ISG Provider Lens™

Next-Gen ADM Services

Evaluating application development providers' capabilities, go-to-market strategies and differentiators

BROCHURE | **MARCH 2024** | **APAC, BRAZIL, EUROPE AND U.S.**

Table of Contents

Leveraging the capabilities of software to integrate across all business layers, generating new data sources, and achieving enterprise agility is a critical necessity for contemporary application outsourcing. Next-Generation Application Development and Maintenance (ADM) services encompass a wide range of offerings, including consulting, design, custom development, integration of packaged software, application management and operations, quality assurance, security services, and testing.

The advent of cloud-based computing, alongside the increasing demand for automation and artificial intelligence (AI), is reshaping the landscape for cloud-native application development, bringing it into a new era of focus. The emergence of Generative AI (GenAI) and specialized Large Language Models (LLMs) marks a significant, albeit nascent, entry into the market. Service providers are now prioritizing Agile methodologies, ensuring the continuous, secure delivery and automation of software development processes through DevSecOps. Customized roadmaps are being developed to align digital, operational, and technology objectives with client needs.

Service providers are empowering organizations to automate routine tasks and derive deeper insights into their application development processes through AI. This shift has spurred the creation of new tools and platforms that embed automation and AI capabilities, thereby speeding up development cycles, enhancing security, facilitating threat detection and vulnerability management, and elevating the end-user experience. Consequently, this enables the delivery of intuitive, engaging, and personalized applications.

This study delves into the recent advancements within the application development, application management, and quality assurance sectors, with a particular emphasis on AI. In conjunction, ISG has introduced the ISG Provider Lens™ Next-Gen ADM Solutions - Low-Code Development Platforms and No-Code Development Platforms study in 2024. This initiative aims to provide clients with a comprehensive understanding of the application solutions market.

Six quadrants cover the **key capabilities** across application development, managed services, and quality assurance.

Simplified Illustration Source: ISG 2024

Agile Application Development Outsourcing

Agile Application Development Projects

Application Managed Services

Application Quality Assurance

Continuous Testing Specialists

AI-enabled Application Development and Maintenance (AI-ADM)

The ISG Provider Lens™ Next-Gen ADM Services 2024 study offers the following to business and IT decision-makers:

- Transparency on the strengths and weaknesses of relevant providers.

- A differentiated positioning of providers by segments on their competitive strengths and portfolio attractiveness.

- Focus on different markets, including the U.S., Europe (including Germany), APAC*, Brazil.

ISG studies serve as an important decision-making basis for positioning, key relationships and go-to-market considerations. ISG advisors and enterprise clients also use information from these reports to evaluate their current vendor relationships and potential engagements.

* Asia Pacific including ANZ, India and ASEAN+6, but excluding Japan, S. Korea and China/Taiwan.

Agile Application Development Outsourcing

Definition

This quadrant assesses service providers that offer ADM expertise using different technologies, spanning the complete application development and management landscape and most industry verticals, in outsourcing deals based on the delivery capacity for a specific time frame (three- to five-year contracts, renewable).

ADM outsourcing offers capacities to support clients' application portfolios or business units, regardless of the programming languages and number and size of projects. It covers large and highly complex application landscapes that can span multiple geographic locations, dedicated regional requirements, the technological ecosystem's various layers and development stages, and brings it in line with the requirements of the client's organizational entities. One of ADM outsourcing's roles is to break up silos in both organization and technologies to create unified technology platforms for the application development landscape, and thus allow faster and more innovative go-to-market on a large scale.

This study evaluates how service providers use project management tools, platform as a service (PaaS), software as a service (SaaS), low-code and no-code platforms or other accelerators to elevate clients' application development and management capabilities. The providers in this quadrant build capabilities to use AI-based accelerators for code development and review activities leading to benefits such as improved code quality and faster time to market.

A typical service provider in this quadrant has extensive consulting expertise and high-end technology partnerships to implement CI/CD pipelines, application testing and DevOps to enable clients to achieve high performance while reducing time to market.

Eligibility Criteria

1. Management of over 20 squads for a single client or being able to **scale up to more than 1,000 developers**, working simultaneously on several projects

2. Ability to **rapidly scale up or down** and add more than 100 developers in a week to meet a client's demands as necessary

3. Ability to **offer localized support**, adapt to regional regulations, and understand and cover entity-specific needs across multiple countries

4. **Comprehensive application development platform** that covers resource allocation, portfolio management, backlog prioritization, Agile methods, Waterfall methods, system integration, application modernization, cloud-native application development, AI accelerators and other services to optimize development teams

5. **Certified to transform and deploy Agile teams** under frameworks such as Scaled Agile Framework (SAFe) and Large-Scale Scrum (LeSS)

6. **Certified experts** in Scrum, Kanban, Lean development or other Agile methodologies

Agile Application Development Projects

Definition

This quadrant evaluates service providers that offer Agile application development in deals that include clear scope definitions for project outcomes, specific application development skills, business goals or squad capacity.

Typical service providers in this quadrant offer expertise to ensure successful business outcomes for each Agile project. Deals can include a fixed number of team members per squad or flexible models measured by application feature delivery or other pricing methods. Project engagements can vary from small mobile applications to large solution implementations. Typical engagements take less than 18 months. Large projects are exceptions and most likely have staggered releases or more sprints.

Service providers in this quadrant are also responsible for fully managing their delivery teams. The ability to engage many squads to support a client is considered, but application staff augmentation services are excluded from this quadrant. Providers should manage the squad size and offer experts according to throughput targets.

These service providers add specific knowledge and skills required by squads or projects. They can differentiate themselves by offering business expertise in dedicated industries, business environments, technology areas or expertise in development accelerators. The commercial business model centers on providing squads for client-managed application development units.

Eligibility Criteria

1. **Projects are typically measured** by the number of squad members, user stories delivered, deployment rate and frequency, defect count, time to market and business-related indicators, such as shared business outcomes

2. **Certified experts** in: Agile methods, such as Scrum, Kanban or Lean development; cloud-native data analytics; low-code/no-code development; system architecture; and CX design

3. **Certified experts** in software specialty and niche development, such as security, legacy modernization, IoT or dedicated industry expertise

4. **Proof-of-delivery capacity** with client references; they should not be startups or recently established companies

5. Talent acquisition programs, training programs, **knowledge management processes and the provision** of a healthy work environment to retain top talent

6. **Business expertise or development accelerators** for CRM, e-commerce, ERP or industry-specific technologies

Application Managed Service

Definition

This quadrant assesses service providers responsible for managing clients' defined application portfolios (applications in production). It does not include niche application specialists. Application managed services (AMS) comprise application support, enhancements, platform upgrades, application security, bug fixing, troubleshooting and merging enhancements and development backlogs under Kanban or similar methodologies. The leading service providers in this quadrant offer application monitoring, release management, version control, defect identification, resolution and database query performance, AI-based automation tools and cost optimization methodologies.

Typical service agreements include metrics for the time taken to resolve an incident or service request, service availability, the defect rate, user satisfaction or Net Promoter Score (NPS) and UX. Service transition and client onboarding should include application documentation, service ticket records, knowledge transfer and expert transfer/hire optionally. Continuous

service delivery starts after the transition period ends and often includes quality improvement programs and service knowledge refresh.

The quadrant also assesses service providers' capability to integrate AI and GenAI into the managed services lifecycle. These technologies have proven advantageous across the AMS lifecycle, benefiting stakeholders across both the client and service provider sides.

Large, long-term ADM contracts may include AMS in application outsourcing deals comprising Agile development, application modernization and quality assurance services. This quadrant specifically focuses on the AMS services offered by providers.

Eligibility Criteria

1. **Deployment and operation of service platforms** for performance and defect management, including troubleshooting, application tickets and service requests

2. Employment of **vendor-certified experts** in packaged e-commerce, ERP or CRM (at least one of these commercial applications)

3. Clearly supports **Microsoft and Oracle technologies**, Java programming and relational databases (such as MySQL, Oracle Database, PostgreSQL and SQL Server); mainframe and other technologies can add to a provider's rating but are not required for inclusion

4. **Integration of more than two service platforms**, such as Atlassian Jira, SAP Solution Manager, and ServiceNow and application platforms, such as AWS, Google Anthos, IBM Rational, and Microsoft Azure

5. **AI-based automation** tools that cover the client's entire application landscape and extend beyond incident and alert management

6. Contracts are based on **fixed service fees or outcomes**, providing clients with options; staff augmentation is an accepted exception

7. Continuously active and effective **cost optimization** and control mechanisms that cover the entire system of managed applications

Application Quality Assurance

Definition

This quadrant assesses service providers that offer comprehensive quality assurance (QA) programs, including assessments, design, implementation and quality assurance managed services. Service deliverables include setting methods for business process optimization, effort estimation, project planning, documentation, sprint execution timelines, criteria for a product to be deemed complete, testing strategies to identify bugs or defects in a product and the level of business process optimization reached.

Service providers in this quadrant can design processes to attain the desired product or service quality at project and business levels, ideally covering a client's complete application portfolio. They leverage quality frameworks to support application code quality improvements, infrastructure resiliency, digital testing, security and quality assurance artifacts, and products and vendor tools.

The quality assurance service should include training and education to help clients mature their software engineering capabilities. A quality assurance program should involve all the development teams, including experts from the outsourcing companies working for clients.

This quadrant also assesses how providers leverage production logs to extract insights for improved application quality and performance and integrate application performance management tools with AI and ML for data monitoring to predict the quality of new applications.

Eligibility Criteria

1. **Centralized QA** unit that lays down quality standards for clients' projects

2. Comprehensive technical **QA framework**, which includes planning, implementation, monitoring, review and improvements

3. **Consulting team** focused on analyzing business demands and securing development and delivery according to business requirements

4. Applying **technology to perform analytics** over logs and AI for continuous improvement in results

5. **Differentiation with proprietary tools** and leverage vendor partnerships for quality monitoring, application performance and testing tools

6. **Training and education** offerings for developers, testers and operators to develop a quality excellence mindset and ensure that the overall product or service meets the desired quality

Continuous Testing Specialists

Definition

This quadrant assesses continuous testing services providers. Continuous testing is the process of automatically testing software changes as they are made to ensure that new features and code changes do not introduce regressions or break existing functionality. Providers execute application testing, including defining the testing strategy, scope, methods and scripts. They also can differentiate the best approach to manual testing before consuming automation resources in test execution. These providers have the skills to deploy automation, execute testing cycles and produce the necessary evidence to support compliance auditing.

Continuous application testing focuses on delivering quality in tandem with the speed of Agile development. In terms of technology, it encompasses various aspects of automated testing, such as shift-left and end-to-end automation across testing phases, in every phase of the continuous delivery process.

This discipline goes beyond automation-based testing regarding people and processes; it accomplishes better collaboration between the quality assurance and development teams in sprint cycles, besides feature-driven testing and responsiveness to changes. Providers' portfolios may include unit testing, system testing, regression testing, compliance testing, performance and load testing, user acceptance testing and smoke testing. The most comprehensive portfolio gets a better appraisal.

Eligibility Criteria

1. **Qualified professionals** for test-driven development (TDD), behavior-driven development (BDD) and other approaches

2. Capability to **handle large-scale testing** and continuous integration demands of complex systems, such as ERP and e-commerce, with many test cases

3. **Consulting services** that include test automation implementation, which can be integrated with clients' development and DevOps tools and help clients optimize their continuous testing performance to reduce the testing time

4. **Continuous services**, including testing data and test coverage assessments, enabling automated testing across many continuous integration pipelines, and managing testing artifacts for the significant reutilization of such artifacts

5. **Replication and reuse of testing artifacts** to use in multiple projects

AI-enabled Application Development and Maintenance (AI-ADM)

Definition

This quadrant assesses service providers offering AI-based application development and maintenance services. These providers use technologies such as ML, natural language processing (NLP) and AI- and therefore GenAI-based tools in their services across the application development and maintenance lifecycle.

AI-based automation enhances application development processes by minimizing repetitive and manual tasks. It can also be utilized to automate processes, including code generation, bug detection and testing. They add self-learning mechanisms to the systems, improving their individual performance over time. This leads to accelerated development cycles and enhanced overall process efficiency and cost efficiency. Enterprises benefit from improved user experience, smarter decision-making and streamlined automation and efficiency. AI automation also facilitates predictive analytics, user behavior modeling,

efficient resource management, real-time data processing, enhanced security and fraud detection, and simplified application development.

The service providers participating in this quadrant should clearly understand concepts such as ML, deep learning, NLP, neural networks, LLM and predictive and prescriptive analytics to introduce automation in application development.

This quadrant evaluates providers with expertise in AI and ML and proven capabilities in automating application development and maintenance. Discovery tools are also prevalent among providers in analyzing application dependencies, identifying violations, and flagging incorrectly assembled elements such as actions, screens and entities. They enforce best practices and identify duplicate code while enabling teams to keep pace with accelerated production schedules.

Eligibility Criteria

1. **High level of AI-based automation** and improvements through machine learning in both application development and application management scenarios

2. Proven **improvements in delivery** for clients in comparison to non-AI methodologies

3. Indicative improvement in developer KPIs, reflected in competitive pricing and business benefits

4. Comprehensive **set of AI-based tools**, developed in-house or together with a third party, that are deeply integrated into the ADM platform offered

5. **Consulting team** focused on analyzing business demands and securing development and delivery according to business requirements

6. **Training and education** offerings for developers, testers and operators

7. Proven **efforts to develop and integrate GenAI and LLMs** into the existing automation solutions for expanded functionalities

8. **AI partner network** to integrate, use and optimize AI-based tools and small/large language models.

Quadrants by Regions

As part of this ISG Provider Lens™ quadrant study, we are introducing the following Six quadrants on Next-Gen ADM Services 2024:

Quadrant	Brazil	APAC	Europe	U.S.
Agile Application Development Outsourcing	✔	✔	✔	✔
Agile Application Development Projects	✔		Germany	✔
Application Managed Services	✔	✔	✔	✔
Application Quality Assurance	✔	✔	✔	✔
Continuous Testing Specialists	✔			✔
AI-enabled Application Development and maintenance			✔	✔

Schedule

The research phase falls in the period between April and June 2024, during which survey, evaluation, analysis and validation will take place. The results will be presented to the media in October 2024.

Milestones	Beginning	End
Survey Launch	March 27, 2024	
Survey Phase	March 27, 2024	April 24, 2024
Sneak Previews	August 2024	
Press Release & Publication	October 2024	

Please refer to the link to view/download the ISG Provider Lens™ 2024 research agenda

Access to Online Portal

You can view/download the questionnaire from here using the credentials you have already created or refer to instructions provided in the invitation email to generate a new password. We look forward to your participation!

Research Production Disclaimer:

ISG collects data for the purposes of writing research and creating provider/vendor profiles. The profiles and supporting data are used by ISG advisors to make recommendations and inform their clients of the experience and qualifications of any applicable provider/vendor for outsourcing the work identified by clients. This data is collected as part of the ISG FutureSource™ process and the Candidate Provider Qualification (CPQ) process. ISG may choose to only utilize this collected data pertaining to certain countries or regions for the education and purposes of its advisors and not produce ISG Provider Lens™ reports. These decisions will be made based on the level and completeness of the information received directly from providers/vendors and the availability of experienced analysts for those countries or regions. Submitted information may also be used for individual research projects or for briefing notes that will be written by the lead analysts.

ISG Star of Excellence™ – Call for nominations

The Star of Excellence™ is an independent recognition of excellent service delivery based on the concept of "Voice of the Customer." The Star of Excellence™ is a program, designed by ISG, to collect client feedback about service providers' success in demonstrating the highest standards of client service excellence and customer centricity.

The global survey is all about services that are associated with IPL studies. In consequence, all ISG Analysts will be continuously provided with information on the customer experience of all relevant service providers. This information comes on top of existing first-hand advisor feedback that IPL leverages in context of its practitioner-led consulting approach.

Providers are invited to nominate their clients to participate. Once the nomination has been submitted, ISG sends out a mail confirmation to both sides. It is self-evident that ISG anonymizes all customer data and does not share it with third parties.

It is our vision that the Star of Excellence™ will be recognized as the leading industry recognition for client service excellence and serve as the benchmark for measuring client sentiments.

To ensure your selected clients complete the feedback for your nominated engagement please use the Client nomination section on the Star of Excellence™ website.

We have set up an email where you can direct any questions or provide comments. This email will be checked daily, please allow up to 24 hours for a reply.

Here is the email address:
ISG.star@isg-one.com

ISG Star of Excellence

Methodology & Team

The ISG Provider Lens 2024 – Next-Gen ADM Services research study analyzes the relevant software vendors/service providers in the global market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

Study Sponsor:
Heiko Henkes

Lead Analysts:
Akhila Harinarayan, Pedro L Bicudo Maschio and Oliver Nickels

Research Analysts:
Bruno Nakazone, Maharshi Pandya and Puranjeet Kumar

Data Analyst:
Rajesh MC

Project Manager:
Abhishek Rammurthy

Information Services Group Inc. is solely responsible for the content of this report. Unless otherwise cited, all content, including illustrations, research, conclusions, assertions and positions contained in this report were developed by, and are the sole property of Information Services Group Inc.

The research and analysis presented in this report includes research from the ISG Provider Lens program, ongoing ISG Research programs, interviews with ISG advisors, briefings with services providers and analysis of publicly available market information from multiple sources. The data collected for this report represents information that ISG believes to be current as of March 2024, for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time, but those changes are not reflected in this report.

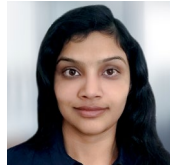All revenue references are in U.S. dollars ($US) unless noted.

Contacts For This Study

Study Sponsor

Heiko Henkes

Director and Principal Analyst, Global IPL Content Lead

Akhila Harinarayan

Lead Analyst, APAC and U.S.

Pedro L Bicudo Maschio

Lead Analyst, Brazil

Oliver Nickels

Lead Analyst, Europe

Abhishek Rammurthy

Global Project Manager

Bruno Nakazone

Research Analyst, Brazil

Maharshi Pandya

Research Analyst, APAC

Puranjeet Kumar

Research Analyst, U.S. and Europe

Rajesh MC

Data Analyst

ISG Provider Lens Advisors Involvement Program

ISG Provider Lens offers market assessments incorporating practitioner insights, reflecting regional focus and independent research. ISG ensures advisor involvement in each study to cover the appropriate market details aligned to the respective service lines/technology trends, service provider presence and enterprise context.

In each region, ISG has expert thought leaders and respected advisors who know the provider portfolios and offerings as well as enterprise requirements and market trends. On average, three advisors participate as part of each study's quality and consistency review team (QCRT). The QCRT ensures each study reflects ISG advisors' experience in the field, which complements the primary and secondary research the analysts conduct. ISG advisors participate in each study as part of the QCRT group and contribute at different levels depending on their availability and expertise.

The QCRT advisors:

- Help define and validate quadrants and questionnaires,

- Advise on service provider inclusion, participate in briefing calls,

- Give their perspectives on service provider ratings and review report drafts.

ISG Advisors to this study

Pierre Moulin

Director

Dr. Matthias Paletta

Service Line Director

iSG Provider Lens™   NEXT-GEN ADM SERVICES | MARCH 2024   **16**

Invited Companies

If your company is listed on this page or you feel your company should be listed, please contact ISG to ensure we have the correct contact person(s) to actively participate in this research.

a1qa*	Compass UOL*	Fujitsu*	Ioasys*
Accenture*	Concentrix*	GFT*	ITC Infotech*
Apexon*	CWI*	Globant*	Iteris*
Aspire Systems*	Cybage*	HCLTech*	keeggo*
Atos*	Datamatics*	Hexaware*	Kyndryl*
Auditeste*	Datum*	HTC Global*	Levva*
Base2*	DBC Company*	IBM*	LTIMindtree*
Birlasoft*	Deal*	iLAB*	Marlabs*
BRQ*	Deloitte*	Ilegra*	Mastek*
Capgemini*	DXC Technology*	Ilia Digital*	Meta*
Cast*	e-core*	Indium*	Minsait*
CI&T*	Encora*	Infinite*	Mphasis*
Cigniti*	Eviden*	Infosys*	MTP*
Coforge*	Ewave*	Inmetrics*	N-iX*
Cognizant*	Fcamara*	Innominds*	NTT DATA*

Invited Companies

If your company is listed on this page or you feel your company should be listed, please contact ISG to ensure we have the correct contact person(s) to actively participate in this research.

* Rated in previous iteration

Objective Group*	Spassu*	Unisys*
Orange Testing*	Squadra*	UST*
Persistent Systems*	Stefanini*	Vericode*
Prime Control*	SVLabs*	WarmUP*
QA Consultants*	Taking*	Wipro*
Qintess*	TCS*	Yaman*
Qualitest*	Tech Mahindra*	Zensar*
Quinnox*	Testing Company*	
RPerformance*	TestingXperts*	
Sempre IT*	Thoughtworks*	
SLK Software*	Tietoevry*	
Sofist*	TIVIT*	
Softtek*	TMIntelligence*	
Sonda*	Trigent Software*	
Sopra Steria*	T-Systems*	

ISG Provider Lens™

The ISG Provider Lens™ Quadrant research series is the only service provider evaluation of its kind to combine empirical, data-driven research and market analysis with the real-world experience and observations of ISG's global advisory team. Enterprises will find a wealth of detailed data and market analysis to help guide their selection of appropriate sourcing partners, while ISG advisors use the reports to validate their own market knowledge and make recommendations to ISG's enterprise clients. The research currently covers providers offering their services across multiple geographies globally.

For more information about ISG Provider Lens™ research, please visit this webpage.

ISG Research™

ISG Research™ provides subscription research, advisory consulting and executive event services focused on market trends and disruptive technologies driving change in business computing. ISG Research™ delivers guidance that helps businesses accelerate growth and create more value.

ISG offers research specifically about providers to state and local governments (including counties, cities) as well as higher education institutions. Visit: Public Sector.

For more information about ISG Research™ subscriptions, please email contact@isg-one.com, call +1.203.454.3900, or visit research.isg-one.com.

ISG

ISG (Information Services Group) (Nasdaq: III) is a leading global technology research and advisory firm. A trusted business partner to more than 900 clients, including more than 75 of the world's top 100 enterprises, ISG is committed to helping corporations, public sector organizations, and service and technology providers achieve operational excellence and faster growth. The firm specializes in digital transformation services, including AI and automation, cloud and data analytics; sourcing advisory; managed governance and risk services; network carrier services; strategy and operations design; change management; market intelligence and technology research and analysis.

Founded in 2006, and based in Stamford, Conn., ISG employs 1,600 digital-ready professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry's most comprehensive marketplace data.

For more information, visit isg-one.com.

ISG Provider Lens™

MARCH, 2024

—

REPORT: NEXT-GEN ADM SERVICES