ISG Provider Lens™

Next-Gen Application Development & Maintenance (ADM) Services

Next-gen ADM

Nordics 2019-20

Quadrant Report

A research report comparing provider strengths, challenges and competitive differentiators

December 2019

Customized report courtesy of:

Capgemini

About this Report

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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 September 2019 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.

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ISG Provider Lens™

ISG Provider Lens™

ISG Provider Lens™ delivers leading-edge and actionable research studies, reports and consulting services focused on technology and service providers' strengths and weaknesses and how they are positioned relative to their peers in the market. These reports provide influential insights accessed by our large pool of advisors who are actively advising outsourcing deals as well as large numbers of ISG enterprise clients who are potential outsourcers.

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EXECUTIVE SUMMARY

Next-Gen ADM

Next-generation application development is finding an increased usage of automation in the development lifecycle. The Nordics market has witnessed deals involving leading service providers in the realm of application modernization and application development & maintenance (ADM) across public, energy, telecom and financial services industries, to name a few. Enterprises are undertaking ADM for transformation, operations stabilization, business agility, compliance and enhanced customer satisfaction in the region. The market is gradually maturing with the use of machine learning (ML), which can identify and predict incidents in application service management. With the reduction in incidents, providers are transferring the benefits to enterprise clients by optimizing costs and ensuring commitment to continuous quality improvements.

Low code gaining popularity: Low-code development has been in the market for a short time but has grown significantly, driven by factors such as faster prototyping and rapid deployment. It allows developers to build software in a simplified manner without the need for expertise. Many service providers are partnering with or acquiring niche low-code vendors to further enhance their agile capabilities.

AI-ready application development: Artificial intelligence (AI) and ML algorithms are generating cognitive and predictive analytics insights such as automated business modeling and business process migration. This has resulting in new forms of automation and factorization of ADM. Large service providers are well ahead in the technical curve but to be successful in this market they need to showcase regional leadership and understanding.

Agile Development

Processes, customized practices and business needs are some of the key tenets that drive agile development, and the maturity of agile application development practices can be viewed through this prism. With the adoption of agile methodologies gradually reaching maturity, service providers should exhibit differentiated capabilities. Service providers are scaling their agile practice to facilitate an organization-wide agile transformation for their clients. Creating an agile mindset across teams in various business units led by scrum masters is one of the approaches that is growing in popularity.

Distributed agile teams: Distributed agile teams are becoming immensely popular, and the differences in time zones and physically distributed teams are two reasons for this trend. When compared to colocated teams, these teams have higher productivity and levels of commitment to the team goals and demonstrate more ownership and responsibility. Additionally, tools such as the agile board are being used to visualize the tasks and further enhance the management and progress in their agile development.

Cloud-based solutions on the rise: ISG is witnessing strong traction in cloud-based agile development owing to factors such as a reduction in time to code, test and deploy software. Other than the advantages, cloud-based tools provide the flexibility to the agile team in terms of scalability. The use of cloud-based agile solutions provides a competitive advantage of integrating newer technologies.

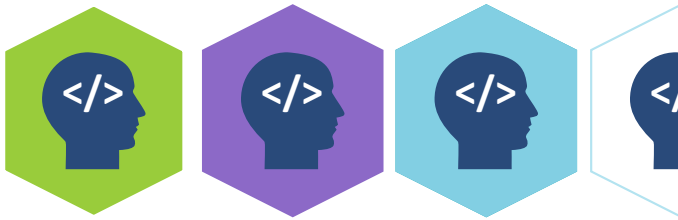
Continuous Testing

The adoption of continuous testing is gradually increasing as agile, DevOps and automation are emerging as the new norms of the IT industry. The rising demand for quicker delivery of applications also supports this trend. One step toward continuous testing involves deploying test automation in various QA tasks through data and test automation tools. Enterprises are seeking service providers that provide end-to-end continuous testing as a service, including design, functional testing, data management and environment management. To meet the requirements of enterprise clients, most service providers are investing in integrating new technologies like AI and ML and adopting new methodologies to further enhance continuous delivery.

"Shift left" in testing lifecycle: Shift left involves modernizing the testing strategy toward the overall digital transformation by conducting testing earlier in the development pipeline. It is also about delivering speed and efficiency in the overall testing practice. This methodology helps in boosting productivity and avoiding costly delays that would further reduce the time-to-market.

Headless testing: Headless testing is performed on a browser without any graphical user interface. Owing to the rapid development in this segment, developers and organizations will soon embrace headless testing in the continuous testing practice. The method typically leverages containers and involves running tests without any interface, thereby enabling rapid and cost-effective deployment.

Model-based testing on the rise: Model-based testing is based on visual representations and the automatic generation of test artifacts such as test cases and test automation scripts. The model provides the flexibility to adapt to the rapidly changing requirements.



Introduction

Simplified illustration

Source: ISG 2019

Definition

In recent years, application outsourcing has evolved from being led by a waterfall-based traditional development approach into one that has incorporated disruptive agile-based operating models, thereby making the core development model a direct competitive advantage for many enterprises. Enterprise customer requirements are currently being led by mobile and other emerging technologies, which, in turn, are fueling the transformation of the application services landscape.

Enterprises are adapting to this changing environment through faster releases and deployments of application services. Of course, not all application outsourcing is the same, because not all buyers and users have the same needs. Typical application development & maintenance (ADM) services include application consulting, designing, custom development, packaged software integration, operations, quality assurance, security and testing, but the elements related to speed and faster releases in this traditional approach are coming from DevOps and agile methodologies.

Definition (cont.)

ISG has been witnessing contracts where clients are looking to leverage software capabilities to solve business problems and gain competitive advantage, coupled with the increasing need for speed-to-market. Service providers are augmenting their traditional ADM base with these emerging methodologies, technologies and collaborative frameworks to meet their clients' objectives. ISG terms such contract types as next-gen ADM contracts. This study tries to understand the client objectives and assesses provider capabilities to deliver on next-gen ADM contracts.

Scope of the Report

The ISG Provider Lens™ study offers IT decision-makers:

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Focus on different markets, including global, the U.S., Germany, the U.K., Brazil and the Nordics.

The study serves 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 new engagements.

Definition (cont.)

Next-generation ADM Services

Like traditional application services, next-generation ADM services cover consulting, design, customized development, packaged software integration, DevOps, agile, operations, testing and security (including application security, governance and other related areas). However, the scope, delivery mechanism and outcome for ADM contracts pivot around a value-based approach, where the focus is on achieving enterprise agility and solving business problems. This quadrant will assess vendors based on their capability to augment traditional ADM services with emerging technologies/methodologies like agile development, DevOps, automation, data analytics, artificial intelligence (AI), and digital and modernization techniques to deliver application lifecycle projects. It will also assess the provider's capabilities in incorporating new approaches to deliberately focus on business results during the development and delivery of applications.

Agile Development

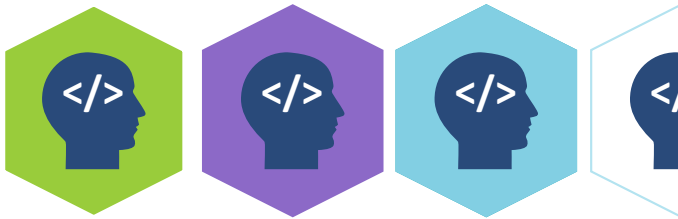
Agile development is mainly focused on the frameworks and principles of agile, a collaborative way of working in uncertain circumstances. In the software development domain, it showcases an incremental and iterative approach to application development with the ability to adapt and respond to change as the key tenets. Because agile encompasses frequent, short development cycles and early releases of the software product, enterprises view it as a means to attain enterprise agility. It includes methodologies such as Scrum, extreme programing, feature-driven development (FDD) and the dynamic systems development method (DSDM).

This quadrant will assess the capabilities of a provider to deliver tangible results through various agile methodologies such as Scrum, Kanban, Crystal and extreme programming. It will also examine the use of agile development with respect to the provider's overall application development practice.

Definition (cont.)

Continuous Testing

Continuous testing is focused on delivering quality assurance quickly. In terms of technology, it encompasses various aspects of automated testing such as shift left and end-to-end automation across testing phases and at every phase of the continuous delivery process. However, in terms of people and processes, it goes beyond automation-based testing. Thus, it accomplishes higher collaboration among QA and development teams to sync with sprint cycles, feature-driven testing, responsiveness to change, creation of a feedback loop and greater client involvement. Continuous testing is gaining momentum, especially to help enterprises keep pace with their agile and DevOps initiatives.



Provider Classifications

The ISG Provider Lens™ quadrants were created using an evaluation matrix containing four segments, where the providers are positioned accordingly.

Leader

The "leaders" among the vendors/providers have a highly attractive product and service offering and a very strong market and competitive position; they fulfill all requirements for successful market cultivation. They can be regarded as opinion leaders, providing strategic impulses to the market. They also ensure innovative strength and stability.

Product Challenger

The "product challengers" offer a product and service portfolio that provides an above-average coverage of corporate requirements, but are not able to provide the same resources and strengths as the leaders regarding the individual market cultivation categories. Often, this is due to the respective vendor's size or their weak footprint within the respective target segment.

Market Challenger

"Market challengers" are also very competitive, but there is still significant portfolio potential and they clearly lag behind the "leaders." Often, the market challengers are established vendors that are somewhat slow to address new trends, due to their size and company structure, and have therefore still some potential to optimize their portfolio and increase their attractiveness.

Contender

"Contenders" are still lacking mature products and services or sufficient depth and breadth of their offering, while also showing some strengths and improvement potentials in their market cultivation efforts. These vendors are often generalists or niche players.

Provider Classifications (cont.)

Each ISG Provider Lens™ quadrant may include a service provider(s) who ISG believes has a strong potential to move into the leader's quadrant.

Rising Star

Rising stars are mostly product challengers with high future potential. When receiving the "rising stars" award, such companies have a promising portfolio, including the required roadmap and an adequate focus on key market trends and customer requirements. Also, the "rising stars" has an excellent management and understanding of the local market. This award is only given to vendors or service providers that have made extreme progress towards their goals within the last 12 months and are on a good way to reach the leader quadrant within the next 12-24 months, due to their above-average impact and innovative strength.

Not In

This service provider or vendor was not included in this quadrant as ISG could not obtain enough information to position them. This omission does not imply that the service provider or vendor does not provide this service.

Next-gen Application Development & Maintenance (ADM) Services - Quadrant Provider Listing 1 of 2

	Next-Gen ADM	Agile Development	Continuous Testing
Atos	Product Challenger	Product Challenger	Not In
Bacancy Technology	Not In	Contender	Not In
Birlasoft	Contender	Not In	Not In
Capgemini	Leader	Product Challenger	Leader
Cognizant	Leader	Leader	Rising Star
DXC	Leader	Leader	Product Challenger
Eficode	Product Challenger	Product Challenger	Not In
EPAM	Not In	Not In	Product Challenger
HCL	Leader	Leader	Leader
Infosys	Leader	Leader	Not In

Next-gen Application Development & Maintenance (ADM) Services - Quadrant Provider Listing 2 of 2

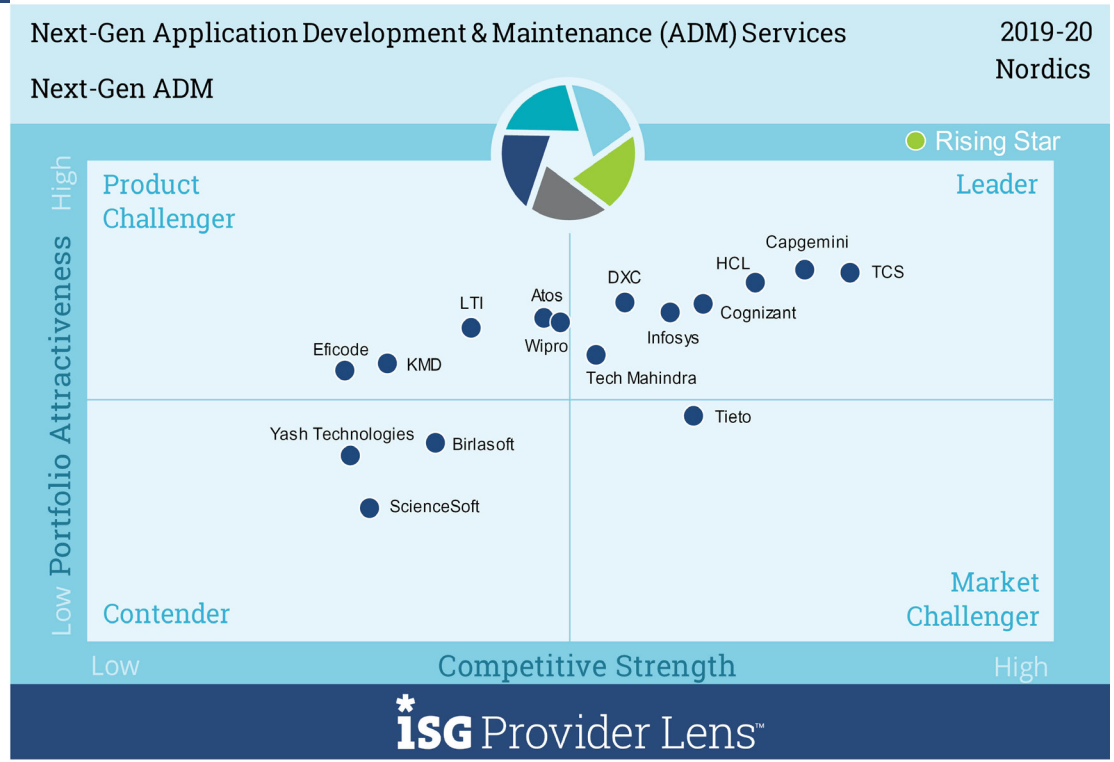
	Next-Gen ADM	Agile Development	Continuous Testing
KMD	Product Challenger	Product Challenger	Not In
LTI	Product Challenger	Product Challenger	Product Challenger
Praqma (Acquired by Eficode)	Not In	Not In	Contender
Qcentris	Not In	Not In	Contender
ScienceSoft	Contender	Not In	Not In
TCS	Leader	Leader	Leader
Tech Mahindra	Leader	Product Challenger	Market Challenger
Tieto	Market Challenger	Market Challenger	Contender
Wipro	Product Challenger	Not In	Leader
Yash Technologies	Contender	Contender	Contender

Next-Gen Application Development & Maintenance (ADM) Services Quadrants

NEXT-GEN ADM

Definition

Like traditional application services, next-generation ADM covers consulting, design, custom development, packaged software integration, DevOps, agile, operations, testing and security (including application security, governance and other related areas). However, the scope, delivery mechanism and outcome for such contracts pivot around a value-based approach, where the focus is on achieving enterprise agility and solving business problems. This quadrant assesses vendors based on their capability to augment traditional ADM services with emerging technologies/methodologies like agile development, DevOps, automation, data analytics, artificial intelligence (AI), and digital and modernization techniques to deliver application lifecycle projects. It also evaluates the provider's capabilities in incorporating new approaches toward business results during the development and delivery of applications.



Source: ISG Research 2019

NEXT-GEN ADM

Eligibility Criteria

- Ability to offer the lifecycle of ADM services, which includes design, development, integration security and testing along with consulting
- Ability to showcase the execution and use of emerging technologies/methodologies like agile, DevOps, chaos re-engineering and automation in their ADM processes
- Capability to apply digital and modernization techniques for legacy application modernization and replacement

Observations

- **Capgemini's** automation drive suite, innovation capabilities and SaaS solutions make it a leader in this segment.
- **Cognizant's** well-defined frameworks for application maintenance and comprehensive digital-ready program are some of its key differentiators.
- **DXC's** future delivery framework, robust partner network and security-first approach makes it a leader in this segment.
- **HCL's** app modernization framework, digital approach for agile development and expansion through M&As give the firm an edge over competitors.
- **Infosys's** framework, digital capabilities through its "navigate your next" strategy and flexible pricing models keep it ahead of the competition.
- **TCS'** Machine-First Delivery Model (MFDM™), Global Network Delivery Model (GNDM™) and strong market presence in the region make the company a compelling choice for ADM deals.
- **Tech Mahindra's** ADM portfolio, industry standards-based methodology and service management approach make it a leading service provider.

CAPGEMINI

Overview

Capgemini is a global next-gen ADM provider headquartered in France. The firm categorizes its next-gen ADM services as ADMnext, which is focused on accelerating the client's journey with continuous evolution. With ADMnext, clients can leverage the full potential of their application portfolio through Capgemini's continuum of "excel, enhance and innovate." For its strong ADM service portfolio, the firm has more than 50 clients across multiple industries, 8 delivery centers and nearly 3,000 employees in the Nordics.

Strengths

Automation Drive suite: Capgemini leverages this suite of services to address client requirements and reduce the time-to-market. The suite has three components. Automation Drive Framework embraces the full spectrum of what automation has to offer based on business scenarios — from monitoring, robotics and orchestration services to advanced AI and cognition as well as fully autonomous services. Automation Drive Tools and IP combines Capgemini's automation tools with high-quality partner technologies and it monitors the main trends in rapidly evolving automation technologies. Automation Drive Services facilitates continuous integration of new innovative services in business and also brings speed and scalability to the end-to-end value chain.

Economic Application Portfolio Management (eAPM): Capgemini leverages this software as a service (SaaS) to help clients decide on transformation options (e.g., rationalization, move to cloud, DevOps or digital). eAPM collects insights to foresee risk and to make data-driven decisions. The firm has set up an eAPM studio to support transition, gain insights, address vulnerabilities and find opportunities for modernization.

Applied Innovation Exchange (AIE): This is Capgemini's global initiative to apply innovation. It is designed to help enterprises discover, contextualize, experiment with and draw value from innovations across the globe. Enterprises can leverage partners in AIE's ecosystem (which includes technology vendors, startups and specialist firms) to execute new ideas and develop prototypes or proof-of-concept (POC) projects with short deadlines and limited budgets.

Caution

Capgemini's has clients across all industry verticals. However, the company derives the majority of its revenue from BFSI industry and hence it could focus on increasing its client base in other industries.

2019 ISG Provider Lens™ Leader

Capgemini has a strong go-to market-strategy to industrialize the delivery of its full-stack digital service portfolio. It has also made investments in cloud and emerging technologies like AI and data science to address various client requirements. These aspects make the firm a leader in this domain.

Methodology

METHODOLOGY

The research study "ISG Provider Lens™ 2019-20 – Next-gen Application Development & Maintenance (ADM) Services" analyzes the relevant software vendors/service providers in the Nordics market, based on a multi-phased research and analysis process. It positions these providers based on the ISG Research methodology.

The study was divided into the following steps:

1. Definition of Next-gen Application Development & Maintenance (ADM) Services market
2. Use of questionnaire-based surveys of service providers/vendor across all trend topics
3. Interactive discussions with service providers/vendors on capabilities & use cases
4. Leverage ISG's internal databases & advisor knowledge & experience (wherever applicable)
5. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
6. Use of the following key evaluation criteria:
   - Strategy & vision
   - Innovation
   - Brand awareness and presence in the market
   - Sales and partner landscape
   - Breadth and depth of portfolio of services offered
   - Technology advancements

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Lead Analyst

Kartik Subramaniam is the Lead Analyst for SAP HANA and Application Development and Maintenance (ADM). He brings in close to 10 years of experience in primary as well as Secondary Research, Advisory and Consulting experience from leading IT companies such as Accenture, IBM, IDC and TNS. Kartik has worked on many Research and Advisory assignments in the areas of offering in application development and maintenance, multi layered/pace layered IT/applications, cybersecurity and infrastructure services. Apart from research, Kartik also worked closely with the strategy and sales teams providing insights on strategic planning for offerings and creating seller enablement deliverable through analytics at Accenture and IBM respectively.

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Senior Analyst

Arul Manoj is a Senior Analyst in ISG; in this role, he is responsible for supporting IPL studies on Next-gen Application Development & Maintenance (ADM) and SAP HANA & Leonardo Ecosystem. During his tenure, he has developed content for ISG Provider Lens™ in the areas of Next-gen Application Development & Maintenance (ADM), SAP HANA and Leonardo Ecosystem and Data Analytics Services & Solutions. As part of ISG Provider Lens™, Arul is responsible for supporting research authors and authoring blogs about niche technologies, market trends and insights.

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Jan Erik Aase is a director and principal analyst for ISG. He has more than 35 years of collective experience as an enterprise client, a services provider, an ISG advisor and analyst. Jan Erik has overall accountability for the ISG Provider Lens™ reports, including both the buyer-centric archetype reports and the worldwide quadrant reports focused on provider strengths and portfolio attractiveness. He sets the research agenda and ensures the quality and consistency of the Provider Lens™ team.

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