Application Modernization Services 2023 RadarView

Revitalizing businesses through application modernization solutions

August 2023

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# About the Application Modernization Services 2023 RadarView
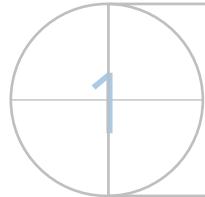
1 The growing enterprise demand for application modernization services is driven by the need to stay competitive, embrace digital transformation, and maximize the potential of modern technologies. Service providers are offering tailored modernization strategies, leveraging advanced technologies, and building new platforms around them.
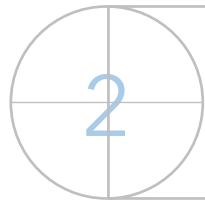
2 Avasant evaluated 34 providers using a rigorous methodology across the key dimensions of practice maturity, partner ecosystem, and investments and innovation. Through its analysis, Avasant recognized 23 providers that brought the most value to the market over the last 12 months.
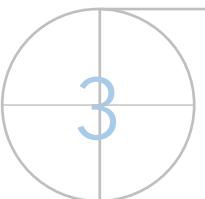
3 The *Application Modernization Services 2023 RadarView* aims to provide a view into the leading service providers for application modernization services. Based on our methodology, these service providers are categorized into four broad segments: leaders, innovators, disruptors, and challengers.
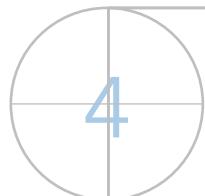
4 To enable decision-making for enterprises, Avasant has provided an overview of the major application modernization service providers in the industry. This includes a list of their top enterprise clients, customer success stories, key IP assets/solutions and partnerships, and major industry verticals they serve. This is supported by an analyst's perspective on the provider across the three key dimensions defined in the second point above.

Note: Please refer to Avasant's *Application Modernization Services 2023 Market Insights* for demand-side trends

Defining application modernization services

Application modernization services

Application modernization refers to updating or replacing legacy software with modern, cloud-based solutions to help organizations modernize their existing applications. This improves performance, scalability, and agility while reducing costs and minimizing risk. The process includes various activities: application assessment, platform selection, cloud-native development, deployment, and ongoing support and maintenance.

The key dimensions of application modernization services are as follows:

Strategy and planning

- Creating a clear plan for modernizing the application, including selecting the appropriate technology stack, data modeling, security frameworks, tools, and processes.

Assessment and analysis

- Conducting a current state assessment of the existing application to identify areas for improvement and potential risks.

Architecture and design

- Developing modern application architectures, such as microservices, APIs, and cloud-native solutions.

Development and integration

- Developing and integrating capabilities, including modern development frameworks, database integration, and third-party integrations.

Deployment and migration

- Deploying and migrating applications to modern platforms, including cloud-based platforms, containers, and serverless architectures.

Support and maintenance

- Offering ongoing support and maintenance services to ensure the modernized application performs optimally over time.

Avasant recognizes 23 top-tier providers supporting the enterprise adoption of application modernization services
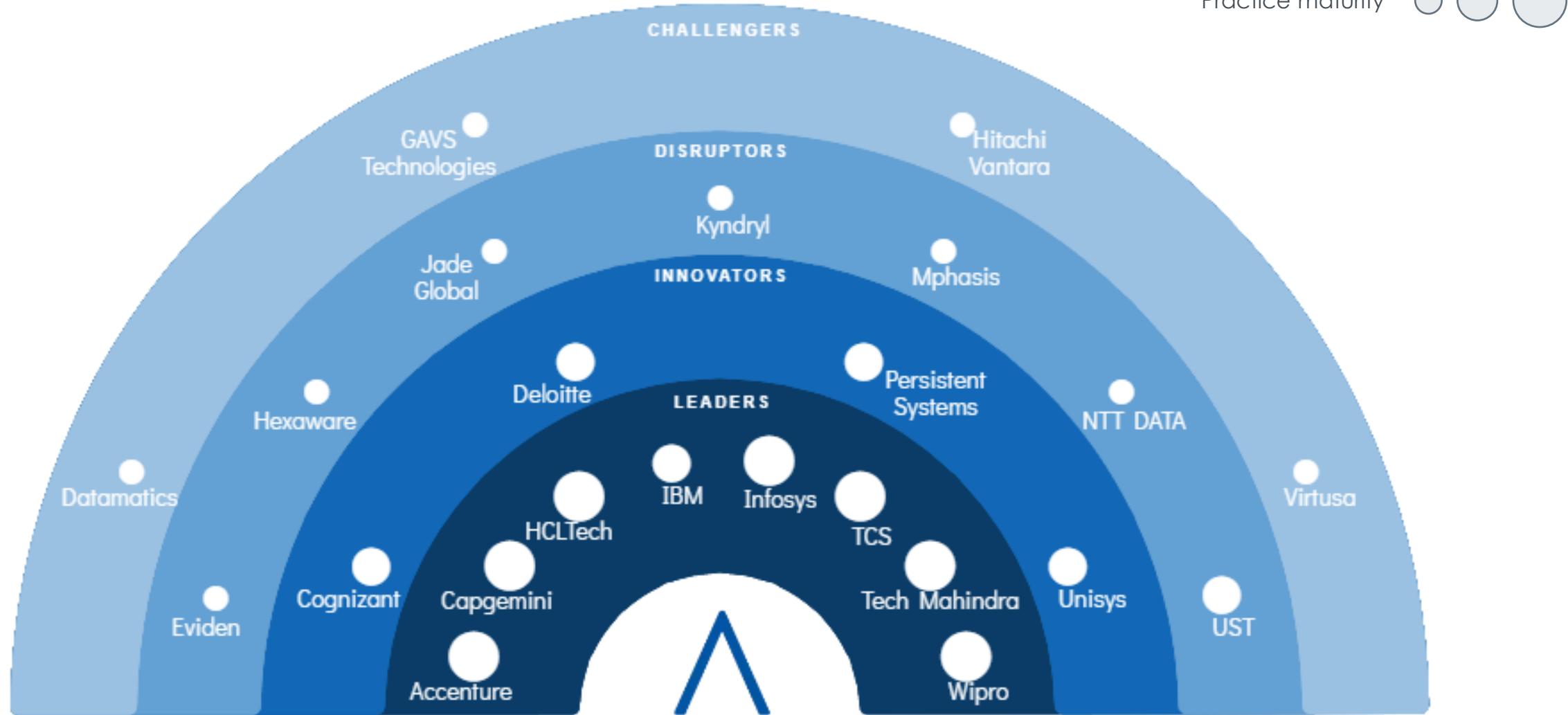
Service provider	Practice maturity	Partner ecosystem	Investments & innovation	Key highlights
accenture	★★★★★	★★★★★	★★★★★	Focuses on cloud acquisitions as part of its Cloud First strategy. Partners with Red Hat to facilitate mainframe modernization and orchestration of IT workloads.
Capgemini	★★★★★	★★★★★	★★★★	Has built a mainframe modernization Experience Zone to codevelop and test use cases with cloud experts before implementation.
cognizant	★★★★	★★★★	★★★★★	Offers ZDLC IT Knowledge Automation kit to automatically extract the logic and data flows embedded in the legacy application code.
DATAMATICS	★★★	★★★	★★★	Has deployed projects on different platforms using accelerators like trade finance, loan origination system, e-office, fraud analytics, and document consistency checker.
Deloitte.	★★★★	★★★★★	★★★	Has partnered with CAST and launched Green IT by Design to help organizations define and roll out digital sobriety strategies.
EVIDEN an atos business	★★★	★★★★	★★★★	Has built an AI-driven digital assurance platform that helps decrease the cost of quality, identify defects, and reduce test time.
GAVS	★★★	★★★	★★	Uses platform-driven Cloud Factory Model for migration and cloud-native development. Offers API/microservices and XaaS-based operating models..
HCLTech	★★★★★	★★★★★	★★★★★	Delivers CloudSMART services through its Cloud Factory Model. Invests in developing sustainability services for carbon footprint analysis of the complete IT landscape.
HEXAWARE	★★★	★★★★	★★★	Leverages Amaze for Applications platform for modernizing portfolio applications to cloud-native applications.
HITACHI Inspire the Next	★★★	★★★	★★★	Leverages the e3 modernization framework to help enterprises transform the legacy landscape in three phases: envision, evaluation, and execution.

Service provider	Practice maturity	Partner ecosystem	Investments & innovation	Key highlights
IBM	★★★★	★★★★★	★★★★★	Leverages the Red Hat OpenShift container platform, enabling developers to deploy and monitor enterprise workloads in Kubernetes clusters.
Infosys	★★★★★	★★★★★	★★★★★	Leverages its zero-disruption modernization framework to help enterprises enhance customer experience, business values, and data and application integration capabilities.
JADE	★★★	★★★	★★	Leverages its Digital Modernization Framework to help enterprises determine migration readiness, perform transformation, and enable continuous optimization.
kyndryl	★★★	★★★★	★★★	Has launched Kyndryl Bridge to provide enterprises with real-time insights on complex IT estates, leveraging automation and AI-powered management tools.
Mphasis The Next Applied	★★★★	★★★★	★★★	Offers application modernization services with zero-cost transformations, including optimization of enterprise applications without affecting the IT budget and business continuity.
NTT Data	★★★	★★★★	★★★	Uses Nexient's capabilities to augment its application modernization, transformation, and cloud-native development services.
Persistent	★★★★	★★★★	★★★★★	Leverages Persistent University to offer tailored learning experiences and cloud certifications to upskill and reskill employees to meet specific enterprise needs.
tcs TATA CONSULTANCY SERVICES	★★★★★	★★★★★	★★★★	Leverages its Machine First Delivery Model™ (MFDM) framework to build, test, and deploy applications on the cloud.
Tech Mahindra	★★★★★	★★★★	★★★★★	Has augmented its capabilities in application development and hybrid cloud automation. Leverages TACTiX to automate IT operations tasks and detect issues.
unisys	★★★★	★★★★★	★★★★	Offers a Cloud Maturity Assessment Service, leveraging its CloudForte Navigator™ tool, that helps clients evaluate their existing cloud infrastructure and determine the best solutions.

Provider comparison (3/3)

| Service provider	Practice maturity	Partner ecosystem	Investments & innovation	Key highlights
UST	★★★★	★★★	★★★	Leverages its cloud migration solution UST CloudVelocity to help midsize enterprises migrate workloads to hybrid cloud environments.
virtusa	★★★	★★★	★★★	Leverages its cloud migration factory that provides repeatable processes and reusable artifacts for cloud migration.
wipro	★★★★★	★★★★★	★★★★	Has launched Wipro FullStride Cloud Services to bolster its cloud strategy offerings and strengthen the application, data modernization, cloud security, and orchestration capabilities.

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Supply-side trends

Providers are scaling their offerings, showing an increased interest in asset development and practice growth

Share of planned investments across different areas

23%

Asset development

Investing in digital studios and CoEs to launch platforms, tools, and accelerators that bolster cloud-native development and AMS capabilities

22%
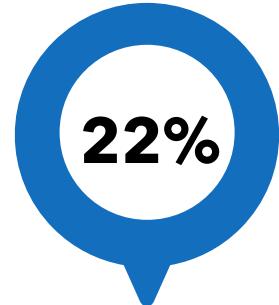
Practice growth

Expanding the practice head count to offer AMS services to new regions and cater to different industries

19%

Human quality development

Training resources internally to overcome the lack of required skillsets in the market when dealing with legacy systems and managing their complexities

18%

Mergers and acquisitions

Making acquisitions to strengthen application modernization, cloud-native development capabilities, and geographical footprint expansion

18%
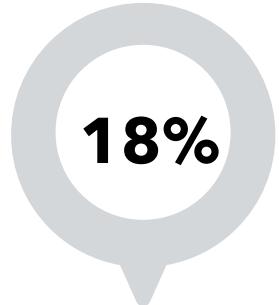
Partner ecosystem

Developing partnerships for go-to-market activities, enhancing digital capabilities, and enabling integrations

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IBM

Launched IBM Wazi as a Service, which offers z/OS® development and testing for cloud-native development and modernization. It helps clients with simplified access to applications and data.

HCLTech

Expanded into mid-sized markets like Brazil, Mexico, Spain, Portugal, South Korea, Vietnam, and Taiwan. Launched delivery centers in India, Sri Lanka, and Vietnam.

Deloitte.

Trained employees across the cloud technologies through Deloitte Cloud Institute™, providing hands-on experience to practitioners with its customized learning approach.

NTT DaTa

Acquired Nexient to augment its application modernization, transformation, and cloud-native application development capabilities.

wipro

Augmented its automation capabilities to address client requirements by partnering with niche technology providers, such as Terraform, Docker, OpenStack and Kubernetes.

Note: Examples from select Application Modernization Services providers.
Source: Avasant Application Modernization Services RadarView Survey, May–July 2023

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Service providers are striking a balance in managing high and low-disruptive application modernization projects

More invasive projects

Application rewrites
Rewriting the application's codebase using modern programming languages, frameworks, and architectures.

Platform migration
Moving the application from one platform to another, such as migrating from monolithic to microservices architecture.

Database restructuring
Changes to the database schema or migrating to a database system to improve performance and scalability.

Legacy system decommissioning
Phasing out and replacing a legacy application with a modern alternative to meet changing business needs.

Technology stack overhaul
Updating the technology stack used in the application, operating system, middleware, and third-party libraries.

Less invasive projects

API integration
Integrating the existing application with modern APIs or web services to extend functionality and enable interaction.

Cloud migration/rehosting
Moving an application from on-premises infrastructure to the cloud, leveraging cloud-native services.

Performance optimization
Making targeted improvements in code, database queries, or infrastructure configuration to optimize performance.

Security updates
Adding encryption, introducing multifactor authentication, or applying security patches to address vulnerabilities.

Interface updates
Making the application responsive, improving the design, and enhancing user interactions.

Source: Avasant Application Modernization Services RadarView Survey, May–July 2023

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Project-based and input-based pricing models are being adopted in nearly 70% of client engagements

As customers increasingly look to pay for the value they derive, tying pricing to a specific metric and billing based on results is gaining traction.

Share of different pricing models

38%
Fixed-price or project-based pricing

32%
Input-based pricing

9%
Outcome-based pricing

Typical areas of adoption

- It works as a service level agreement (SLA)-driven model with a well-defined scope, target architecture, frameworks, and a clear understanding of business needs. It is especially favored for short-term and low-risk projects with predictable outcomes.
- Service providers leverage in-house frameworks, accelerators, and reusable components throughout planning, development, and testing activities in projects with this pricing model, helping reduce the time to market.

- It is used in projects where clients are unsure of the inventory and complexity of applications in their IT landscape and projects have unpredictable outcomes with less clarity on final deliverables.
- This model is also applied in a multivendor environment where multiple service providers collaborate and allocate resources dynamically according to project requirements. The billing is done periodically and incorporates the variable effort put in by the service providers.

- It links pricing to a metric and charges customers based on the specific outcomes they want, such as reducing cloud infrastructure costs or increasing cloud security. It allows customers to pay for the value they receive and the outcomes they achieve.
- This model is commonly used when the focus is on achieving the desired outcome or result, the expected results of the project are clearly understood, and the success of the outcome is used to get into a deal with this pricing model.

Note: Other pricing models include output-based and hybrid pricing models, adopted in 8% and 9% client engagements, respectively.
Source: Avasant Application Modernization Services RadarView Survey, May–July 2023

The top challenges confronting providers are stakeholders' reluctance to change and legacy system complexities
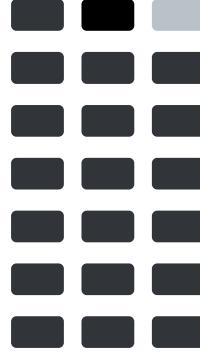
93%
Change management
- Lack of readiness to change among the stakeholders
- Limited understanding of modernization benefits, security concerns, and fear of job loss

91%
Legacy system complexities
- Difficult to modernize outdated programming languages, code structures, and architectures
- Dependence on outdated hardware and specific vendors
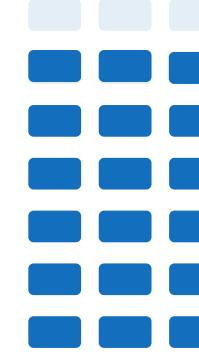
85%
Integration issues
- Integration challenges with legacy systems, third-party software, and cloud environments
- Insufficient skilled resources for handling complex integration
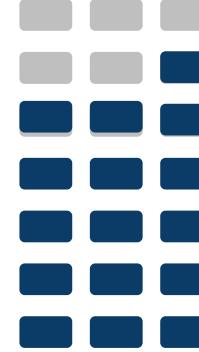
78%
Data migration challenges
- Need to ensure data consistency and format across different sources and applications
- Necessary to maintain data security and privacy during migration
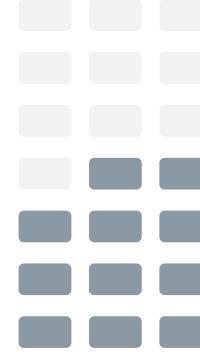
52%
Managing costs
- Addressing unexpected expenses to optimize cost management
- Allocating skilled resources appropriately and balancing investments in new technologies

Source: Avasant Application Modernization Services RadarView Survey, May–July 2023

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RADARVIEW™

accenture

AVASANT RADARVIEW™
LEADER
Application Modernization Services
2023

Practice maturity ★★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★★★

Focuses on cloud acquisitions as part of its Cloud First strategy. Partners with Red Hat to facilitate mainframe modernization and orchestration of IT workloads.

Practice overview

- Practice size: N?A
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: 100+ innovation hubs

$26B	$1.1B
Cloud revenue, FY 2022	Investment in R&D, FY 2022

Client case studies

- Modernized the Common Origination and Disbursement process at the Office of Federal Student Aid (US) by rebuilding the architecture and transitioning its mainframe platform to an automated, modern technology stack. This resulted in improved agility, cost savings, and enhanced security.
- Rearchitected the packaged Loan System for a US-based bank, transitioning it from a mainframe-based architecture to enhance the user experience of customer service agents. It integrated new APIs into the existing API systems and developed a modernized frontend application.
- Modernized the payment infrastructure and adopted a cloud-native platform for the Nationwide Building Society to improve customer experience. It helped the client review the delivery, functional, and technical capabilities required to modernize its payments environment.
- Helped Exelon PHI execute a brownfield migration and systems upgrade from its legacy SAP platform to SAP S/4HANA to improve customer service and billing operations. It performed about 1,000 tasks, which included PHI's data footprint reduction from 50TB to 5TB.

Key IP and assets

- Accenture Cloud Platform: A unified management platform incorporating multicloud and hybrid enterprise resources
- myConcerto: An insights-driven platform for workload migration acceleration
- myNav®: A framework to migrate, manage, and optimize resources on the cloud

Partnerships/alliances

Cloud platform providers

aws | **Google Cloud** | Azure

ORACLE | **IBM**

Software providers

servicenow | **Adobe** | **salesforce**

SAP | **redhat**

MongoDB | **PEGA**

Sample clients

- Arek Oy
- Exelon PHI
- Minna Bank
- Nationwide Building Society
- The U.S. Department of Education's Office of Federal Student Aid
- A European wealth management firm
- A financial services company
- A global energy company
- A US-based bank

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ●●●●

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Accenture: RadarView profile

Analyst insights

Practice maturity ★★★★★

- Accenture application modernization services offer application and technical architecture advisory, discover and assess the application portfolio, define application road maps, and deliver architecture blueprints. It delivers legacy and cloud modernization leveraging Agile and DevSecOps practices, containerization, and automated code conversions.
- It also offers application engineering services, enabling the creation of cloud-native applications and features to enhance employee and customer experience, product delivery models, and revenue streams.
- In 2021, Accenture launched the Green Cloud Advisor module on its myNav platform. The module helps companies design strategies to reduce carbon emissions. Its myNav platform, launched in November 2019, helps assess, design, and simulate cloud solutions.
- In September 2020, Accenture enhanced its cloud and digital transformation capabilities by introducing Accenture Cloud First. It invested $3B over three years and leveraged its team of 70,000 cloud professionals to enable the training and upskilling of its clients' employees.

Partner ecosystem ★★★★★

- In October 2022, Accenture collaborated with Google Cloud to develop new solutions using data and AI and enhance implementation support.
- In May 2022, Accenture expanded its partnership with Red Hat to codevelop new solutions to help enterprises move into hybrid cloud setups. The new solutions facilitate mainframe modernization, automation, and orchestration of IT workloads, the adoption of edge computing, and migration to a sovereign cloud solution.
- In May 2022, it introduced a joint offering with SAP combining the Rise with SAP solution with its SOAR with Accenture services. The offering comprises enhanced features to help enterprises manage SAP deployments on the cloud. It encompasses cloud infrastructure, application management, and cloud operations.
- In 2022, Accenture collaborated with AWS to start a 12-week, in-person upskilling program on cloud computing to train its workforce.

Investments and innovation ★★★★★

- In June 2023, Accenture acquired Green Domus, a sustainability consultancy in Brazil, to help clients design and implement decarbonization strategies.
- In September 2022, it acquired Sentia Group's businesses in the Netherlands, Belgium, and Bulgaria to expand the hybrid cloud capabilities of Accenture Cloud First. In December 2021, it acquired Headspring's consulting practice to augment its cloud-native and platform engineering capabilities. The acquisition aims to add platform engineering, modernization, architecture, and product management services to its Cloud First model.
- In March 2019, it acquired select assets of Caltec Scube, an Osaka-based system development company, to enhance its capabilities in source code migration services and to update legacy systems with a modern programming language.

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Capgemini: RadarView profile

Practice maturity ★★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★★

Has built a mainframe modernization Experience Zone to codevelop and test use cases with cloud experts before implementation.

Practice overview

- Practice size: 95,000 cloud practitioners
- Practice growth: N/A
- Active clients: 2,997+ cloud services clients
- Delivery highlights: 30 R&D centers around the globe

>$3B Cloud services revenue, as of June 2022	>65% Percentage of digital and cloud revenue

Client case studies

- Modernized the audience research platform of a media company to enhance scalability and agility and manage sudden demand increases during major seasonal sporting events. The microservices-led architecture model improved user experience and reduced time to service.
- Replatformed Corteva Agriscience's Hadoop-based genome processing systems using a serverless, cloud-native architecture. It moved the client's processing and storage capabilities to the AWS cloud and reduced genome processing time from 30 days to one day.
- Modernized the legacy systems of an aerospace manufacturer by leveraging an open-source container-orchestration system to improve lead time, ensure forecasting accuracy, and optimize inventory. The cloud-first approach enabled portability and enhanced resource efficiency.
- Provided cloud advisory services, including migrating and transforming legacy applications on AWS and Azure, to a Brazilian multinational company. This resulted in a reduction in financial losses and an improvement in the quality of services.

Key IP and assets

- API and Microservice Integration Platform: A platform for orchestrating cloud services
- Capgemini FinOps: A framework that supports FinOps governance
- Green Core with SAP Solutions: A tool leveraging S/4HANA on the cloud
- eAPM: An application assessment tool

Key partnerships

Technology partners

SAP   PEGA

Red Hat   MuleSoft

Cloud platform providers

aws   Microsoft

Google Cloud   IBM

Sample clients

- Corteva Agriscience
- A Brazilian multinational company
- A British investment banking firm
- A media company
- A UK-based fashion and homewares retail company
- A UK-based investment banking company
- An aerospace manufacturer

Industry coverage

- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

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Capgemini: RadarView profile

Analyst insights

Practice maturity ★★★★★

- Capgemini has developed the Capgemini cloud framework for its cloud business to transform how it approaches its market. It is based on three main themes: Customer First for providing personalized customer experience, Intelligent Industry to apply advanced technologies to streamline supply chain and manufacturing processes, and Enterprise Management for end-to-end IT cloud transformation, FinOps, and adaptive cloud operations.
- It leverages the Capgemini In-place mainframe modernization solution to help customers choose the workloads to migrate to the public/private cloud. The solution provides real-time access to application business logic and data, helping identify in-place modernization patterns to modernize mainframe workloads. It has also built a mainframe modernization Experience Zone to test and codevelop use cases.
- It has built accelerators such as the eAPM tool for application assessment and the Digital Cloud Platform to offer blueprints and prebuilt components to help enterprises accelerate cloud development and deployment. It enables the modernization of mission-critical applications and accelerates cloud-native, agile development through optimized API integration, performance, flexibility, and business velocity leveraging Azure microservices.

Partner ecosystem ★★★★★

- Capgemini is integrating its cloud framework with the offerings of its strategic partners AWS, Azure, Google Cloud, and IBM to develop a unified experience, from presales to the delivery of cloud services. It also enables the migration of ERP processes to the cloud through its Zienkel platform.
- Capgemini has partnered with Microsoft to launch the Global Data Center Migration Program to leverage its experience driving large transformation projects to drive time and cost efficiency. It also reduces disruptions while migrating its client's data centers and workloads to Microsoft Azure.
- In 2021, it partnered with OVHcloud to combine OVHcloud's cloud solutions with its data protection and security expertise for cloud transformation.
- It has partnered with MuleSoft to enhance its integration and API management capabilities and ensure seamless connectivity across systems and applications.

Investments and innovation ★★★★

- Capgemini places significant emphasis on sustainability and considers it a key area for investment, particularly within its cloud framework. The company has undertaken multiple initiatives to promote sustainability, including developing sustainable products and services, establishing sustainable operations within manufacturing and supply chain processes, and supporting sustainable IT practices.
- Capgemini has strategically invested in enhancing its industry-specific capabilities by acquiring Altran. The integrated organization is now focused on meeting the specific needs of various industries. It is further expanding its capabilities through Capgemini Engineering, particularly developing engineering and R&D expertise.

Cognizant: RadarView profile

Practice maturity ★★★★

Partner ecosystem ★★★★

Investments & innovation ★★★★★

Offers ZDLC IT Knowledge Automation kit to automatically extract the logic and data flows embedded in the legacy application code.

Practice overview

- Practice size: 355,000 employees
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: 100+ delivery centers

$3B+
Investments in acquisitions since 2019

~$19B
Total revenue, FY 2022

Client case studies

- Modernized a 40-year-old legacy mainframe application of a fast-food restaurant chain with cloud-based architecture to ensure business growth. The migration and rewriting of legacy applications resulted in improved agility and a 35% reduction in the total cost of ownership (TCO).
- Helped a restaurant chain modernize its sales data management system by reengineering the system architecture and migrating its legacy solution to a cloud-native digital solution on AWS. This reduced operational costs, risks, and inefficiencies and consolidated 3M sales data transactions.
- Modernized a property and casualty insurance provider's claims processing applications to streamline operations and improve efficiency. It automated the client's claims processing capacity, handling approximately 100,000 claims daily with a 99% success rate.
- Helped a US-based financial services organization upgrade its contact center to enhance customer experience by adding next-generation digital capabilities. It created an IT and cloud migration strategy aligned with business goals, improving operational efficiency and reducing TCO by 25%.

Key IP and assets

- Cognizant AppLens: An AI platform leveraging intelligent data-driven solutions to help enterprises drive application strategy and increase the life span and yield of applications
- Cognizant Skygrade™: A platform to help organizations transform applications with cloud-native development

Key partnerships

Technology partners

SAP | snowflake

salesforce | PEGA

MuleSoft

Cloud platform providers

aws | Microsoft

Google Cloud

Sample clients

- A fast-food restaurant chain
- A global insurance provider
- A global mobile satellite communications firm
- A property and casualty insurance provider
- A restaurant chain
- A US-based financial services organization
- A US-based healthcare firm
- A US-based telecommunications conglomerate

Industry coverage

- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

Cognizant: RadarView profile

Analyst insights

Practice maturity	★★★★

- Cognizant offers application modernization services leveraging the Cognizant Modernization Acceleration Platform, the Cognizant Cloud Acceleration Platform, and other third-party tools. It takes a platform-driven approach to cloud migration, transforms legacy applications into modern platforms, upgrades the technology stack, and migrates applications with automated assessments and remediation.
- Cognizant leverages cloud-native technologies, such as containers, serverless computing models, and microservices architecture on AWS cloud, to enable enterprises to accelerate innovation by building digital products and services with faster time to market.
- It leverages ZDLC IT Knowledge Automation, Cognizant's mainframe legacy application documentation automation kit, to extract the logic and data flows from the legacy application code. The solution enables the automatic generation of interactive visual documentation from the COBOL code and related files to reduce the risk of change.
- It leverages its Digital Footprint Diagnostics tool to analyze the digital footprint of a workload or process and recommends process optimization.

Partner ecosystem	★★★★

- Cognizant is augmenting its vertical go-to-market approach with dedicated business groups for Microsoft, AWS, and Google.
- In June 2021, Cognizant launched a dedicated Google Business Group to offer cloud modernization services on the Google Cloud Platform. The business group includes certified Google Cloud experts to deliver consulting, implementation, management, and migration services.
- In 2020, it formed a dedicated business group for AWS to drive migration, integration, and governance services in the AWS environment.
- In 2020, it acquired New Signature to expand its cloud advisory services and provide a dedicated practice centered on Microsoft cloud solutions.
- To strengthen its API-led integration and migration capabilities, it has collaborated with MuleSoft and leverages the MuleSoft Anypoint Platform.

Investments and innovation	★★★★★

- Cognizant continues to grow inorganically to enhance its cloud capabilities. In November 2022. Cognizant acquired AustinCSI, a digital transformation consultancy firm, to leverage its expertise in enterprise cloud and data analytics advisory services. In October 2020, Cognizant strengthened its Azure advisory and managed services expertise by acquiring 10th Magnitude, which offers application modernization services and AI-driven operations.
- It invests in technical programs to reskill and upskill its employees in IoT, digital engineering, data, and cloud.
- It leverages Cognizant's studios to build new digital products with proprietary tools and capabilities. These studios leverage the Agile methodology to execute complex projects and codevelop solutions with enterprise customers.

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Datamatics: RadarView profile

DATAMATICS

AVASANT RADARVIEW™

CHALLENGER

Application Modernization Services 2023

Practice maturity ★★★

Partner ecosystem ★★★

Investments & innovation ★★★

Has deployed projects on different platforms using accelerators like trade finance, loan origination system, e-office, fraud analytics, and document consistency checker.

Practice overview

- Practice size: 1100+
- Practice growth: 21% YOY
- Active clients: 70+
- Delivery highlights: Presence in six countries

< $100M	20%–30%
AMS revenue, FY 2022–23	AMS revenue YOY growth

Client case studies

- Transformed legacy systems for a UK-based cash supply chain manager to enhance the security of sensitive data. It provided consulting for core legacy system transformation, enhanced operational efficiency by 90%, and improved productivity by 30%.
- Integrated various business units and the underlying IT systems and infrastructure for a Middle Eastern bank and its acquired bank. It implemented IBM DataStage to migrate 400,00 accounts of both banks into a single system and developed more than 150 control reports.
- Deployed an automated build and release for an international organization's web app and API to improve and streamline the release management of existing client applications. The DevOps implementation resulted in a 48% improvement in release speed.
- Implemented a cloud-based sophisticated web application for a commodity exchange company. The solution integrated calling functionality for getting quotes for commodities through calls, improving scalability by 60% and reducing the total cost of ownership (TCO) by 40%.

Key IP and assets

- eContentMigrator: A content migration tool
- TruBI: A data visualization and advanced analytics solution
- TruTest: An automation testing framework
- TruCap: An intelligent document processing tool
- TruBot: A robotic processing automation tool
- iPM: An end-to-end automated workflow engine

Key partnerships

Technology partners

aws   snowflake

IBM   opentext™

salesforce

Platform partners

Microsoft

Sample clients

- A commodity exchange company
- A logistics service provider
- A Middle Eastern Bank
- A UK-based cash supply chain manager
- An American retailer
- An Asian regional development bank
- An Australia-based school chain
- An Indian airport
- An international organization
- An UN organization

Industry coverage

Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

avasant

Datamatics: RadarView profile

Analyst insights

Practice maturity	★★★

- Datamatics' enterprise modernization core competencies include business application services, cloud services, enterprise data management, application modernization using microservices and low code development, digital transformation, and UI/UX enhancement.
- Its consulting offerings include application portfolio assessment and consolidation, ITIL consulting and implementation, data governance, and architecture and design capabilities.
- Its cloud upgrade and migration capabilities involve cloud assessment, cloud adoption strategy, TCO insights, consulting for infrastructure as a service (IaaS), platform as a service (PaaS), software as a service (SaaS), and business process as a service (BPaaS) road map and multicloud planning and management.
- It leverages solutions accelerators to speed up implementations and time to market for clients. It has deployed various projects on different platforms using accelerators like trade finance, loan origination systems, e-office, fraud analytics, and document consistency checker.
- It utilizes industry-standard tools such as SonarQube for code analysis and security andSonarlint for coding standards.

Partner ecosystem	★★★

- Datamatics has a global partnership with Microsoft Azure to enable businesses to create cloud-native applications and solutions within the Azure cloud ecosystem. It simplifies the migration of enterprise applications to the cloud through accelerators, allowing access to these applications across multiple geographical locations. It also develops solutions on the Microsoft Azure platform, offering various deployment options such as on-premises, hybrid, multicloud, and edge computing, all delivered through a build-operate-transfer model.
- It has collaborated with AWS for cloud infrastructure and native services-based implementations. Datamatics partnered with IBM for Filenet deployment, OpenText for Documentum implementation service offerings, and Snowflake for enterprise data management capabilities.

Investments and innovation	★★★

- The application modernization services CoE of Datamatics has expertise in business process management, intelligent automation, service management, digital workplace paperless office, trade finance automation, and enterprise content management. This range of capabilities enables the company to revamp legacy systems and assist enterprises in digital transformation.
- Over the years, Datamatics has built IPs such as eContentMigrator for content migration, TruBI for data visualization, TruTest for automation testing, TruCap for intelligent document processing, and TruBot for robotic process automation.
- Its CoE for technologies includes over 100 certified Microsoft professionals and more than 50 AWS professionals.

Deloitte: RadarView profile

Deloitte.

AVASANT RADARVIEW™ INNOVATOR

Application Modernization Services 2023

Practice maturity ★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★

Has partnered with CAST and launched Green IT by Design to help organizations define and roll out digital sobriety strategies.

Practice overview
- Practice size: 50,000+ cloud professionals
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: N/A

2 Application modernization studios	50+ Countries served

Client case studies
- Modernized the 25-year-old Office of Recovery Service Information System (ORSIS) Child Support system in Utah to change its business process and provide scalability. It leveraged innoWake to enable the mainframe application transformation, processing 600K transactions per day.
- Helped a health insurance provider modernize its applications to improve employee and customer experience. It transformed the delivery model, improved security measures, and designed innovative workforce transformation to improve the quality, scale, and efficiency of its applications.
- Modernized the legacy applications of a multinational organization to meet the changing customer needs. It created a road map for process efficiencies and workforce agility and built an application modernization center to enhance user experience.
- Defined a road map to rationalize six platforms of a Fortune 50 managed care organization into a single cloud-based platform and automated business rules extraction. This resulted in increased efficiency by six times and enabled faster delivery.

Key IP and assets
- innoWake™: A platform to help modernize an organization's applications from COBOL, Natural, Assembler, JCL, PL/1, CA Gen/Cool Gen to Java, .NET, cloud, and cloud native
- ATADATA™: A cloud management platform with automated solutions to streamline the mapping, migration, and management of enterprise-class workloads in any cloud environment

Key partnerships

Cloud platform providers

aws   Google Cloud

Technology partners

boomi   appian

outsystems   CAST Software Intelligence for Digital Leaders

Sample clients
- A Fortune 50 managed care organization
- A global technology company
- A health insurance provider
- A multinational organization
- A US-based healthcare company
- A US-based retailer
- State of Utah

Industry coverage

| Aerospace & defense |
| Banking |
| Financial services |
| Government |
| Healthcare & life sciences |
| High-tech |
| Insurance |
| Manufacturing |
| Nonprofits |
| Retail & CPG |
| Telecom, media & entertainment |
| Travel & transportation |
| Utilities & resources |

Darker color indicates higher industry coverage through digital services ● ● ● ●

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Deloitte: RadarView profile

Analyst insights

Practice maturity ★★★★

- Deloitte application modernization services leverage a three-way approach — assess, migrate, and modernize — for transforming legacy-based enterprise applications and rearchitecting business and IT functions.
- For application assessment, it leverages application and infrastructure blueprints to understand the legacy environment and identify vital application code dependencies and data information, online batch programs, vital system characteristics, and third-party utilities and interfaces. It also determines the optimal path for each application and compares the total cost of ownership in different environments.
- Deloitte leverages its migration factory solution for planning and executing migrations. It enables the migration of ERP solutions such as SAP and Oracle ERP to the cloud. It also enables enterprises to decommission applications to reduce technical debt, costs, and cybersecurity breaches.
- Deloitte's modernization solution offers any-to-any language modernization by refactoring the language, provides microservices and cloud-native modernization, and furnishes prebuilt customized solutions for modernization.

Partner ecosystem ★★★★★

- In October 2022, Deloitte partnered with CAST and launched Green IT by Design to help organizations define and roll out digital sobriety strategies. It aims to design applications and IT systems in an eco-friendly manner.
- In March 2021, Deloitte collaborated with AWS to enable clients to migrate mainframe applications to AWS. It leverages its innoWake platform to automate the migration of mainframe workloads. It also leverages ATADATA, Deloitte's cloud-managed platform, to migrate SAP workloads to AWS.
- In March 2020, Deloitte partnered with Appian to modernize mission systems for its commercial, federal civilian, defense, state, and local government agency clients. It enabled clients to leverage low-code development and intelligent automation to modernize their systems.

Investments and innovation ★★★

- Over the years, Deloitte has built multiple solutions to support its application modernization practice. This includes Deloitte OpenCloud, which offers third-party tools, configurations, and scripts to accelerate digital transformation; Cloud Workbench to assess cloud-readiness and evaluate the difference in the total cost of ownership across environments; and TalkQE™ to accelerate end-to-end test automation and reporting.
- Deloitte Cloud Institute™ trains the workforce across the cloud and technology life cycle. It is a curriculum designed to support learning and provide hands-on experience to practitioners. It also follows a customized learning approach for each practitioner.

AVASANT

EVIDEN
an atos business

AVASANT RADARVIEW™
DISRUPTOR
Application Modernization Services 2023

Practice maturity ★★★

Partner ecosystem ★★★★

Investments & innovation ★★★★

Has built an AI-driven digital assurance platform that helps decrease the cost of quality, identify defects, and reduce test time.

Practice overview

- Practice size: 57,000 engineers worldwide
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: Presence in 45 countries

€5 B	2,100
Total revenue, FY 2022	Total patents

Client case studies

- Transformed the digital infrastructure for Coventry Building Society by migrating its applications to AWS and integrating on-premises data centers with the cloud. The migration helped redesign and improve the applications without any system disruption.
- Modernized the legacy print policy system for a US-based life insurance company to streamline the policy distribution. It leveraged the Exit Legacy tool kit and automated re-architecture to Java. The incremental modernization solution resulted in 50% faster implementation.
- Re-platformed the mainframe applications for a UK-based life insurance company to MicroFocus Enterprise Server 5.0 deployed on the Redhat Linux operating system. It also designed and set up the architecture of the target platform and lowered the total cost of ownership by 70%.
- Modernized a global logistics company's legacy account receivable system to handle huge volumes of data and enhance reporting capabilities. It revamped the existing Cobol/IMS system to Java/Oracle, reduced system complexity, and enabled a single invoice system.

Key IP and assets

- Exit Legacy: A cloud-based application platform for migrating legacy systems
- Atos Cloud Foundry: A multicloud application platform
- CCAT: A cloud code analyzer tool

Key partnerships

Cloud platform providers

aws | Azure | Google Cloud

Technology partners

PEGA | mx mendix | appian | snowflake | outsystems | blueprism

Sample clients

- Coventry Building Society
- A financial services firm
- A global logistics company
- A UK-based life insurance company
- A US-based life insurance company
- A US-based retailer

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

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Eviden: RadarView profile

Analyst insights

Practice maturity	★★★

- Eviden, an Atos subsidiary, was launched as a new Atos digital business unit brand. The application modernization services offering of Atos is now a part of Eviden's solutions portfolio. Its application modernization services aim to transform legacy applications by leveraging automation and cloud-native applications, helping enterprises achieve business agility, reduce complexity and accelerate the time to market.
- Eviden leverages its agile operating model, Digital Software Services Framework, to offer sustainable digital practices with Agile principles. Its Scaled Agile Framework (SAFe) utilizes lean principles, portfolio management, and scrum and supports phased implementation.
- It has built an AI-driven digital assurance platform that performs root cause analysis to detect failures, analyzes code- and user story-based impact, identifies defect hotspots, optimizes and prioritizes test suite, automation capabilities, and ML-based data quality assurance.
- Its mainframe modernization framework involves business case creation, bottom-up analysis, business rules extraction, execution planning by defining workstreams, technology and business validations, and phased roll-outs.

Partner ecosystem	★★★★

- In January 2021, Atos announced its strategic partnership with OVHcloud multicloud solutions, primarily focusing on enterprise data protection and security. The partnership aims to strengthen the Atos OneCloud initiative and augment OVHcloud's cloud capabilities for hybrid cloud environments.
- Atos is continuously expanding its existing partnership with AWS. In 2020, it selected AWS as one of Atos OneCloud's strategic partners, combining Atos' cloud capabilities throughout the adoption cycle into an integrated offering.
- Eviden has partnered with Appian, OutSystems, and Mendix for low-code/no-code development; Pega Systems for business process automation capabilities and Blue Prism to strengthen integration capabilities.

Investments and innovation	★★★★

- In April 2023, Eviden announced the opening of three cloud centers: two in India and one in Poland. Each cloud center focuses exclusively on one task area (migration, cloudops, or engineering).
- In January 2022, Atos acquired Cloudreach, a multicloud services company with application development and migration capabilities across AWS, Microsoft, and Google. This acquisition and the Edifixio deal aim to augment Atos' cloud-native capabilities.
- It has designed AI-enabled labs to conduct seminars and hackathons, on-boarded startups to enrich its portfolio and digital engagements with clients, and established university technology partnerships to leverage research on emerging technologies and build tools and frameworks to accelerate programs.

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RADARVIEW™

GAVS

AVASANT RADARVIEW™ CHALLENGER
Application Modernization Services 2023

Practice maturity ★★★

Partner ecosystem ★★★

Investments & innovation ★★

Uses platform-driven Cloud Factory Model for migration and cloud-native development. Offers API/microservices and XaaS-based operating models.

Practice overview

- Practice size: 4000+ technologists
- Practice growth: N/A
- Active clients: 200+ global customers
- Delivery highlights: 10+ global locations

100+ Digital transformations delivered

400+ Products engineered

Client case studies

- Modernized legacy client-server-based healthcare information system application for a super specialty hospital into a web application with API and microservices architecture. It developed a business intelligence and reporting layer for improved care coordination and decision-making.
- Updated the UI with React and TypeScript for a last-mile delivery provider to improve the UX. The CI/CD deployment of old systems on the GCP Cloud with microservices architecture resulted in improved scalability and security.
- Transitioned 18 different on-premises Dynamics 365 instances to the cloud for a large bank to standardize processes and enable integration with LOS systems. The migration of CRM systems to the cloud rationalized workflows and enhanced reporting and UI/UX capabilities.
- Migrated the on-premises product of a retail company to Azure Cloud to improve user provisioning for customers. It offered an identity and access management solution to facilitate the integration of various end-customer identity providers with single sign-on solutions.

Key IP and assets

- Zero Incident Framework™: An AI-enabled operations platform for proactive detection and remediation of incidents
- Cloud Gain: A cloud cost optimization tool
- Rhodium: A data management solution for the healthcare industry

Key partnerships

Technology partners

snowflake   databricks

splunk>

Cloud platform providers

aws

Sample clients

- A healthcare improvement company
- A large bank
- A medical education product company
- A real estate company
- A retail company
- A super specialty hospital
- A telecom software solutions provider
- A last-mile delivery provider
- Telecom solution provider

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

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GAVS Technologies: RadarView profile

Analyst insights

Practice maturity	★★★

- GAVS Technologies' application modernization services support clients by providing cloud readiness assessment for on-premises workloads and dependencies and planning application data and workload migration to cloud platforms. The company offers both lift and shift and cloud-native services for enterprise modernization journeys.
- It leverages its migration office concept to assess cloud adoption and create landing zone setups for each application.
- It has helped clients migrate from legacy databases like Oracle to SQL Server or PostgreSQL and from SQL Server to Azure Dataverse. It also provides automated deployment using CI/CD pipelines and container services and ensures that data in transit and at rest are well protected with cloud-native services.
- As part of its change management offering, it deploys a specialized team to evaluate the migration strategy for each application, ensuring zero downtime and hassle-free migration. GAVS Technologies also provides a short- and long-term road map for cloud migration and evaluates cloud spending. In addition, it offers live training to the users on modernized applications, along with a detailed user guide for each feature in the product.

Partner ecosystem	★★★

- GAVS Technologies has partnered with Snowflake to leverage its expertise and technology in enhancing its offerings and provide improved solutions to clients. GAVS also aims to utilize Snowflake's cloud data platform, which offers scalable and efficient data storage and analytics capabilities. This collaboration enables it to deliver advanced data solutions and analytics services to its clients, helping them make better data-driven decisions and achieve their business objectives.
- It has partnered with AWS to leverage the cloud infrastructure and services provided by AWS and provide enhanced solutions and services to its clients.
- It collaborates with Splunk for its data analytics capabilities, allowing clients to gain valuable insights from machine-generated data. It also enables companies to collect, monitor, and analyze data from various sources in real time and helps organizations improve operational efficiency and troubleshoot issues faster.

Investments and innovation	★★

- In January 2023, GAVS Technologies was granted a patent for detecting and preventing data exfiltration attacks by the US Patent Office. It assists enterprises in securing their networks from hackers.
- In May 2021, GAVS Technologies launched two development centers in India (Bangalore and Hyderabad). It aims to leverage emerging technologies such as AI, ML, and blockchain for developing client solutions.

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RADARVIEW™

HCLTech

AVASANT RADARVIEW™ LEADER

Application Modernization Services 2023

Practice maturity ★★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★★★

Delivers CloudSMART services through its Cloud Factory Model. Invests in developing sustainability services for carbon footprint analysis of the complete IT landscape.

Practice overview

- Practice size: 54,000+
- Practice growth: 22% YOY growth
- Active clients: 750+
- Delivery highlights: Presence in 60 countries

>$1B	20%–30%
AMS revenue, FY 2022	AMS revenue YOY growth

Client case studies

- Migrated over 60 business and infrastructure services of a UK gas distribution company from existing data centers to the AWS cloud platform. It adopted a lift and shift approach for migration and refactored critical components of the application, leading to faster time to market.
- Helped a Swedish multinational networking and telecommunications company migrate 195 applications to public and private cloud. The migration resulted in reduced operational costs and enabled continuous deployments in the cloud.
- Transformed about two million lines of natural code running on the mainframe to Java stack using the ATMA solution for an American healthcare services provider. It improved the integration capabilities, eliminated manual processes, and enhanced user accessibility.
- Modernized over 30 applications of an aircraft design and manufacturing company and provided cloud operations support for the modernized applications. This established business KPIs and improved process automation and time-to-market solutions.

Key IP and assets

- ADvantage Code: A tool for autogenerating service bootstrapping code deployable on cloud platforms
- ADvantage Modernize: A tool using the Automated Technology Modernization Accelerator (ATMA) to convert legacy applications to a modern cloud-native architecture
- ADvantage Migrate: A tool for automated application database migration, modernization, ETL migration, data warehouse migration, and BI migration

Key partnerships

Technology partners

aws   Google Cloud   IBM

Service partners

FLEXEra Inform IT. Transform IT.   MICRO FOCUS

Platform partners

salesforce   Microsoft   outsystems

MuleSoft   PEGA   appian   AUTOMATION ANYWHERE Go be great

Sample clients

- An Australia-based financial institution
- A non-profit health insurance provider
- A UK gas distribution company
- An American healthcare services provider
- An aircraft design and manufacturing company
- A freight railroads company in North America
- An industrial tools and household hardware manufacturer
- A Swedish multinational networking and telecommunications company

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ●●●●

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HCLTech: RadarView profile

Analyst insights

Practice maturity ★★★★★

- HCLTech offers end-to-end application modernization services, such as legacy application modernization, application portfolio discovery and optimization, application cloud migration, application decommissioning and archival, and mainframe modernization and migration, to help with modernization initiatives.
- HCLTech has developed Cloud Factory Model for delivering application modernization services as part of its CloudSMART services. The factory model is based on standard service descriptions or runbooks for consistent service delivery. Each runbook has a standardized service and a standard price in the service catalog.
- It uses its digital transformation execution framework FENIX 2.0, to define and align product-based organization models for varied operations, development, and business convergence levels. It uses a four quadrants approach to identify differentiated and nondifferentiated value chains and apply investments and efforts.
- It leverages its application portfolio management tool APLM Prizm® for end-to-end current state assessment of the existing applications and migration planning, and HCL AppScan and ADvantage suite for identifying potential risks in the modernization journey.
- Its low-code/no-code solutions follow practices such as cloud-native application development, microservices architecture, and DevSecOps-aligned methods.

Partner ecosystem ★★★★★

- HCL collaborates with cloud platform providers to increase the adoption of industry clouds. It is a launch partner for different industry clouds such as IBM Cloud for Telecommunications, IBM Cloud for Financial Services, Microsoft Cloud for Manufacturing, Microsoft Cloud for Retail, and Microsoft Cloud for Healthcare.
- It cocreates with clients and partners, leveraging over 60 of its innovation labs and more than 100 engineering labs, and it plans to add more labs over the next few years through joint investments. These include HCL Cloud Native Labs to increase the adoption of cloud-native technologies.
- It is a platinum member of the Open Footprint Forum of The Open Group, focusing on industry-standard data models for footprint-related data across enterprise IT. It has also partnered with GoCodeGreen, an application carbon footprint assessment provider.

Investments and innovation ★★★★★

- HCLTech has launched its Kubernetes Migration Platform (KMP) to help organizations accelerate application modernization. HCL KMP is an automated solution that helps organizations migrate workloads from legacy on-premises and Cloud Foundry environments to modern Kubernetes-based platforms.
- HCLTech invests in its SustainIT framework to advise enterprises on sustainability, develop solutions for carbon footprint analysis of the complete IT landscape, and optimize cloud emissions. It plans to leverage its network of global green cloud and data center hosting options, identified through its Certified Alliance Partnership Program, which follows data center neutrality and a partner-agnostic approach.
- It intends to expand into midsize markets, such as Brazil, Mexico, Spain, Portugal, South Korea, Vietnam, and Taiwan, to augment its technology practice.

Hexaware: RadarView profile

AVASANT RADARVIEW™

DISRUPTOR

Application Modernization Services 2023

Practice maturity ★★★

Partner ecosystem ★★★★

Investments & innovation ★★★

Leverages Amaze for Applications platform for modernizing portfolio applications to cloud-native applications.

Practice overview

- Practice size: 30,000+ total employees
- Practice growth: N/A
- Active clients: 20+ active projects under the Amaze platform
- Delivery highlights: 37+ offices in 30+ countries

9 R&D centers and innovation labs	$1.2B Total revenue, FY 2022

Client case studies

- Migrated applications from on-premises to a microservices-based private cloud for a Fortune 500 financial services firm within eight weeks. The move reduced the implementation costs by up to 40% and improved the scalability of instances by four times.
- Assessed the legacy mainframe application stack of a global investment management firm and proposed a road map to rewrite the mainframe code to Java. The mainframe application migration to a cloud-ready Java JEE application reduced operational costs.
- Replatformed the mainframe applications of an employee benefits company to Azure Cloud to enhance process efficiency, drive high performance, and ensure savings. It replatformed 12 million lines of code in 16 months, accelerating modernization and ensuring cost savings of about 57%.
- Migrated the application portfolio of a US-based financial firm to the cloud by replatforming, containerizing, and enabling automation. The solution increased portability, decreased the total cost of ownership (TCO), and accelerated deployments. It also reduced the time to market by 40%.

Key IP and assets

- Amaze®: A suite of offerings for scanning, reviewing, and refactoring applications for cloud transformation
- Tensai®: An end-to-end automation platform
- CloudSwift CAsE: An automated discovery and assessment tool

Key partnerships

Technology partners

appian, automation anywhere, outsystems, APPDYNAMICS part of Cisco, SS&C | blueprism, snowflake, boomi A Dell Technologies Business

Cloud platform providers

aws, Azure, Google Cloud

Sample clients

- A Fortune 500 financial services company
- A global investment management firm
- An employee benefits company
- A secondary mortgage player
- A travel technology company
- A US-based financial services firm

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

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Hexaware: RadarView profile

Analyst insights

Practice maturity	★★★

- Hexaware application modernization services leverage the Amaze for Applications platform that offers end-to-end solutions, including replatforming, rearchitecting, and reengineering legacy applications and replatforming existing databases to AWS. It involves modernizing custom Java and .NET applications from monolithic to cloud-native architecture on any cloud.
- The Amaze for Applications platform also modernizes portfolio applications to cloud-native applications, refactors applications for higher scalability, and enables integrations with platform-as-a-service (PaaS) solutions through APIs.
- Hexaware's cloud TCO calculator enables companies to determine the cloud TCO and cost savings that an enterprise can achieve by replatforming on-premises legacy applications to the cloud.
- It offers consulting assistance through code analysis, transforming monolithic applications to containers and AWS Elastic Beanstalk and modernizing databases such as Oracle, Db2®, Sybase, and SQL into AWS RDS and Aurora DB.

Partner ecosystem	★★★★

- Hexaware has formed strategic relationships with public cloud providers such as AWS, Azure, GCP (a service, sell, and build partner), IBM, and Oracle. With an existing CoE in place with Azure, in September 2020, Hexaware became a Microsoft Azure Expert Managed Service Provider.
- It has partnered with AppDynamics for application performance monitoring; Appian, OutSystems, and Mendix for low-code/no-code development; and Boomi and MuleSoft for integrated PaaS capabilities.
- It has also collaborated with other platform and technology providers, including ServiceNow, SAP, Salesforce, Pivotal, Cloud Foundry, and Adobe, to enable digital transformation initiatives for its clients.

Investments and innovation	★★★

- Hexaware's talent development program HexaVarsity, promotes workforce development through rapid upskilling. In 2021, Hexaware conducted training and certification drives in advanced technologies such as cloud, AI, ML, DevOps, and security. The upskilling program helped more than 5,000 employees to get certified in these areas with support from its global technology partners.
- It has invested in building a state-of-the-art research and innovation department to create unique IPs. To protect its IPs, it has started obtaining patents, initiating the process at patent and trademark offices across nearly 50 countries. It secured one patent during FY 2021 and received 87 trademark registrations across 47 countries.

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HITACHI Inspire the Next

AVASANT RADARVIEW™

CHALLENGER

Application Modernization Services 2023

Practice maturity ★★★

Partner ecosystem ★★★

Investments & innovation ★★★

Leverages the e3 modernization framework to help enterprises transform the legacy landscape in three phases: envision, evaluation, and execution.

Practice overview

- Practice size: 1,700+ application modernization SMEs
- Practice growth: N/A
- Active clients: 220+
- Delivery highlights: Hitachi Application Reliability Centers (HARC) in Dallas, Hyderabad, and Japan

$157M+ Global revenue, FY 2022	22% YOY revenue growth, FY 2022

Client case studies

- Modernized the applications of an education software provider with microservices architecture leveraging the AWS stack. It upgraded the technology stack to reduce development cycles, handle complex integrations, and optimize time to market.
- Transformed the legacy applications of a UK-based healthcare services provider for its national breast screening programs. It provided application releases, IT support, and development services for the NBSS application and achieved a faster time to market.
- Assessed 500 applications and proposed a target state for the applications of a Central European bank. It set up a migration factory for expedited cloud migration utilizing prebuilt templates and platforms. This led to 40% savings in application build and deployment costs.
- Performed cloud readiness and technical debt assessment of an employment screening services provider's application portfolio. It analyzed five different customer applications and created over 30 initiatives to address the functional gaps.

Key IP and assets

- Hitachi Cloud Accelerator Platform: A platform to migrate applications and deliver managed cloud services
- Sprint 2 Cloud: A software analytics tool that provides real-time insights across applications and a data-driven modernization road map

Key partnerships

Technology partners

snowflake   EQUINIX

salesforce   CISCO

Cloud platform providers

aws   Google Cloud

Microsoft

Sample clients

- A Central European bank
- An employment screening services provider
- An education software provider
- A UK-based energy utility services provider
- A UK-based healthcare services provider
- A US-based employment screening services provider
- A US-based health services provider

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ○ ○ ● ●

AVASANT

Analyst insights

Practice maturity ★★★

- Hitachi Vantara application engineering services offer application portfolio assessment and rationalization; legacy application modernization services leveraging integration platform as a service (iPaaS), PaaS, and SaaS platforms across cloud providers; and cloud-native application development services using cloud-native architectures. It also offers full-stack development for web and mobile capabilities.
- Its service offerings include ensuring CI/CD automation leveraging IP-based tools, deploying containerized applications, helping enterprises accelerate application development using DevSecOps processes, and improving pricing and performance leveraging its SaaS and PaaS offerings.
- It leverages the e3 modernization framework, which helps enterprises transform the legacy landscape. It involves three phases: envision, evaluate, and execute. The envision phase includes business goals and objectives definition, discovery sessions, creation of an application modernization blueprint, MVP assessment, and road map development. The evaluation phase involves MVP design, architecture, and KPI measurements. Lastly, the execute phase includes DevSecOps product releases, KPI reporting, and defining product innovation road map.

Partner ecosystem ★★★

- In April 2023, Hitachi Vantara collaborated with Equinix to leverage Platform Equinix® and deliver sustainable solutions in hybrid cloud and multicloud environments.
- It has collaborated with cloud providers, including AWS, Google, and Microsoft, to deliver cloud and data modernization services to its clients.
- It has partnered with Cisco to enhance its offerings in hybrid cloud managed services and integrate Cisco technologies with its storage offerings.
- It has formed a partnership with Snowflake to help organizations unify siloed data, securely access and share data, and execute analytic workloads on the cloud.

Investments and innovation ★★★

- In June 2023, Hitachi Vantara launched Hitachi Application Reliability Centers Service (HARC Service) in Japan to help enterprises with cloud-native operations.
- The HARC Service is focused on making cloud operations more agile, reliable, secure, and cost-efficient by applying site reliability engineering (SRE) principles. By automating system operations and leveraging software engineers skilled in SRE to provide support, the service aims to improve the efficiency and effectiveness of cloud operations. It also offers enhanced visibility into the cloud environment and enables organizations to optimize their infrastructure, leading to accelerated release cycles for cloud applications.

IBM: RadarView profile

AVASANT RADARVIEW™ LEADER

Application Modernization Services 2023

Practice maturity ★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★★★

Leverages the Red Hat OpenShift container platform, enabling developers to deploy and monitor enterprise workloads in Kubernetes clusters.

Practice overview

- Practice size: N/A
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: IBM Consulting CoE for generative AI

~$19B IBM Consulting revenue, FY 2022	7% IBM Consulting revenue YOY growth

Client case studies

- Helped American Airlines migrate its legacy customer-facing applications to VMware HCX on IBM Cloud and transformed them to a cloud-native microservices architecture, enabling accelerated innovation. It sped up the development and release of apps and improved operational reliability.
- Enabled The Co-operative Bank to split up from its parent company by migrating over 250 applications, modernizing critical applications, and providing required security services. This ensured a 100% successful application migration without any disruption to customers.
- Moved the SAP ERP system of Phillips Carbon Black Limited to SAP S/4HANA hosted on AWS to support the client's growth. It also digitized manufacturing operations and implemented data analytics capabilities to optimize operations and improve efficiency.
- Migrated the message exchange service of London Insurance Market Operations & Strategic Sourcing to the IBM cloud. It also launched services, such as SSO capabilities, API gateway, and secure data exchange, using the IBM Garage Method for Cloud and microservices architecture.

Key IP and assets

- IBM Garage™: A framework for developing solutions leveraging design thinking, Agile, and DevOps methodologies
- IBM Consulting Cloud Accelerator: An orchestration platform for facilitating cloud-native application modernization
- IBM Cloud® Paks: A suite of containerized, open-source, enterprise-ready software solutions

Key partnerships

Cloud platform providers

aws | Azure | Google Cloud

Software partners

Informatica | SAP

salesforce | Adobe | vmware

APPTIO

Sample clients

- American Airlines
- J.B. Hunt
- London Insurance Market Operations & Strategic Sourcing (LIMOSS)
- Phillips Carbon Black Limited
- Siemens Gamesa Renewable Energy (SGRE)
- State of Rhode Island
- The Co-operative Bank

Industry coverage

- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

AVASANT

IBM: RadarView profile

Analyst insights

Practice maturity	★★★★

- IBM application modernization services leverage the IBM Garage methodology to create an application modernization road map with multiple approaches such as rehosting, refactoring, replatforming, rearchitecting, or replacing applications. It offers IBM Cloud Paks, an AI-powered software to accelerate application modernization with pre-integrated data, automation, and security capabilities.
- It leverages Red Hat OpenShift, an OpenShift container platform built on IBM Cloud, to enable developers to containerize and deploy enterprise workloads in Kubernetes clusters. It provides a unified dashboard and command-line interface for developers to easily deploy, monitor, and scale the application.
- It offers WebSphere® Hybrid Edition, a suite of WebSphere application runtimes and modernization tools. It supports on-premises and cloud deployments, allowing flexibility in utilizing virtual machines, containers, and Kubernetes for application hosting. It makes the application adaptable to different environments.
- It leverages the IBM Consulting Cloud Accelerator to move complex workloads to any cloud platform or with any modernization strategy. It offers tools, assets, and industry solution starter kits to accelerate the cloud journey.

Partner ecosystem	★★★★★

- IBM Consulting partners with cloud platform providers such as AWS and Azure and major independent software vendors such as Adobe, Oracle, SAP, and Salesforce. It provides services for application modernization, implementation, and migration of enterprise applications such as SAP on AWS and Azure.
- In August 2022, it partnered with VMware to help highly regulated industries, such as financial services, healthcare, and the public sector, modernize hybrid cloud environments. The two companies aim to codevelop new cloud solutions and build joint go-to-market strategies.
- In 2021, IBM partnered with Apptio to help enterprises migrate to a hybrid cloud infrastructure. IBM combined IBM AIOps with Apptio products to offer enterprises information on utilizing cloud resources across the financial landscape and enable them to take decisions accordingly.

Investments and innovation	★★★★★

- In November 2022, IBM and AWS augmented their collaboration by releasing new capabilities, including increased partner access to new SaaS offerings, improved consulting support for clients modernizing on AWS, and expanded mainframe application modernization.
- In February 2022, IBM acquired Neudesic, a US-based Azure consulting firm, to augment its advisory, application development, cloud migration, DevOps, integration, and data engineering capabilities on Azure.
- In February 2022, it launched IBM Wazi as a Service, which offers z/OS® development and testing on IBM Cloud for cloud-native development and modernization. It helps clients with simplified access to applications and data, provides tools for application analysis, and standardizes IT automation.

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Infosys: RadarView profile

Infosys

AVASANT RADARVIEW™

LEADER

Application Modernization Services 2023

Practice maturity	★★★★★
Partner ecosystem	★★★★★
Investments & innovation	★★★★★

Leverages its zero-disruption modernization framework to help enterprises enhance customer experience, business values, and data and application integration capabilities.

Practice overview

- Practice size: 126,000+
- Practice growth: ~16% YOY
- Active clients: 1,100+ deals
- Delivery highlights: 25+ CoE units for end-to-end migration of legacy systems to cloud

>$1B	20%–30%
AMS revenue, FY 2022–2023	AMS revenue YOY growth, FY 2022–2023

Client case studies

- Modernized a German automobile company's end-to-end sales and ordering life cycle and developed a centralized online platform to manage customer sales and overcome data exchange challenges. The newly built application drove annual vehicle sales by 15%.
- Replaced a British multinational oil and gas company's legacy knowledge management system with a cloud-native enterprise solution to manage knowledge assets. The solution enhanced collaboration between employees across 70 countries and improved content accessibility.
- Developed a standalone 5G network using cloud-native SaaS solutions on the cloud for an American television provider. The solution helped the client to accelerate feature rollouts, build a dedicated media Innovation CoE and help in developing a multitenant onboarding platform.
- Helped an American multinational conglomerate build a unified platform using ERP as a Service. This helped the client with 100M $ of yearly cost savings, a 20% reduction in operational efforts for the warranty process, and a 40% improvement in approval cycle time.

Key IP and assets

- Infosys Live Enterprise Application Development Platform: Full-stack hyper-productivity acceleration for application development and transformation
- Infosys Polycloud Platform: Procure, build, and manage vendor-agnostic solutions across multiple hybrid cloud providers
- Infosys Catalyst: Helps enterprises determine future direction, road map and accelerate time-to-value from their S/4HANA adoption

Key partnerships

Technology partners

aws · Google Cloud · IBM

Red Hat · ORACLE · PEGA

salesforce · Microsoft · Adobe

MuleSoft · SAP · EDB POWER TO POSTGRES

Couchbase · Informatica

Sample clients

- A British multinational oil and gas company
- A cosmetic manufacturer
- A French shipping and logistics company
- A German automobile company
- An American-managed healthcare company
- American commercial banking company
- American multinational conglomerate
- American television provider

Industry coverage

- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

AVASANT

Analyst insights

Practice maturity ★★★★★

- Infosys helps enterprises modernize their legacy landscapes with its zero-disruption modernization framework leveraging cloud, open-source software, DevSecOps, and next-generation technologies. This framework is built on seven layers focusing on customer experience, data and application integration, shared digital infrastructure, and business value chain.
- It offers Infosys Live Enterprise Application Development Platform for end-to-end automation of the application development and modernization journey. It uses guided workflows and Generative AI-enabled tools to boost developer productivity across the complete technology stack and all application life cycle stages, including architecture, development, modernization, cloud migration, DevSecOps, and testing. It frees up developers' time to focus on business needs, reduces dependency on niche skills, enables high code quality, and provides real-time project metrics to improve sprint velocity and release predictability.
- It has set up a dedicated DevSecOps practice to provide end-to-end DevSecOps services to its clients. Its advisory services include establishing a strategy and road map for DevSecOps adoption. It has developed the Infosys DevSecOps Platform to empower teams with codified engineering practices and AI/ML insights.

Partner ecosystem ★★★★★

- Infosys works collaboratively with leading organizations to achieve the shared goal of transforming enterprises through Application Modernization Services and innovative solutions. It has a thriving and growing partner and alliance ecosystem, delivering Application Modernization Services that address clients' business and technology challenges. It has deep relationships across an extensive network of leading technology companies to help clients transform and grow.
- It leverages its deep domain knowledge, consulting capabilities, intellectual property (IP) assets, and methodologies to deliver next-generation, future-ready applications with its business partners, which help its clients in meeting their strategic priorities.

Investments and innovation ★★★★★

- In September 2022, Infosys acquired BASE life science to help life sciences companies accelerate clinical trials, scale drug development, and achieve better health outcomes leveraging cloud-first digital platforms and data.
- In February 2022, it launched Infosys Equinox Studio to help enterprises manage digital experiences across channels and integrate enterprise with service-oriented cloud applications by leveraging a low-code/no-code cloud-native platform. It also enables companies with hyperpersonalization capabilities.
- Infosys Innovation Network works with the startup community to provide innovative services to enterprise customers. For example, WANdisco helped Infosys deliver next-generation ML-powered cloud analytics. Infosys also worked with Next Pathway to migrate applications to the cloud.

Jade Global: RadarView profile

JADE™

AVASANT RADARVIEW™
CHALLENGER
Application Modernization Services 2023

Practice maturity	★★★
Partner ecosystem	★★★
Investments & innovation	★★

Leverages its Digital Modernization Framework to help enterprises determine migration readiness, perform transformation, and enable continuous optimization.

Practice overview

- Practice size: 100+
- Practice growth: ~30%
- Active clients: 10+
- Delivery highlights: Presence in five countries

< $100M	30%–40%
AMS revenue, FY 2022	AMS revenue YOY growth

Client case studies

- Migrated Marvel's data and custom plugins from legacy tools such as Jira Server, YouTrack, and Foswiki to modern and scalable tools such as Jira Data Center and Confluence. It leveraged the configuration manager to migrate data and avoided the risk of losing the data.
- Implemented new software and systems for NIAC by replacing its end-of-life legacy systems to improve connectivity between multiple systems and banks. It leveraged APIs and microservices architecture for integrations and saved 40% on maintenance costs.
- Offered a 360-degree assessment of all the process functions and technology of Cavender's retail operations. It also provided a road map for modernization and implemented a modern integration platform to offer scalability.
- Modernized the legacy applications of SAL and developed an end-to-end modernization architecture and integration framework using technologies such as AS/400, API, Custom Apps, Azure, and OCI. It resulted in improved maintainability and lowered downtime.

Key IP and assets

- Zenon: A test automation accelerator
- JadeMS: A framework to convert applications with monolithic architecture to microservices-based architecture
- Jade Azure Data pipeline: A predefined ADF framework that contains smaller versions of pipelines to move away from large monolithic E2E and ETL pipeline designs and architecture

Key partnerships

Technology partners

CONNECTRiA   mx mendix

ATLASSIAN   appian

outsystems   boomi

Platform partners

aws   Microsoft

Sample clients

- Adobe
- Cavender's
- Facebook
- Indeed
- Marvel
- McGrath RentCorp
- NIAC
- Riverbed
- Rivian
- SAL
- ServiceNow
- Uber

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

AVASANT

Jade Global: RadarView profile

Analyst insights

Practice maturity ★★★

- Jade Global application modernization services leverage its Modernize by Degree framework for discovery assessment and creating a road map for the enterprise modernization journey. The framework divides the modernization journey into multiple buckets, such as experience transformation, cloud transformation, automation transformation, modern app transformation, technology upgrade transformation, and functional reengineering.
- It leverages its Digital Modernization Framework to help enterprises determine inventory and migration readiness by performing application portfolio discovery, application assessment, and complexity and target application value assessment. It also helps organize, sequence, and perform the transformation by deciding the application transformation path, aligning the migration reference architecture, and establishing deployment readiness. Additionally, it sustains, supports, and optimizes the transformation by orchestrating infrastructure as a code.
- It enables migration from monolithic designs to multitier and SOA-enabled microservices-based designs. It also guides enterprises in moving from point-to-point integrations to SOA, ESB, and ISB models to avoid challenges in legacy integrations and defines loosely coupled architectures and reusable architectures.

Partner ecosystem ★★★

- Jade Global has partnered with low-code application platforms and low-code integration platforms, such as OutSystems, Mendix, Microsoft Power Platform, and Workato, to assist clients with low-code development, build applications faster, reduce technology debt or COTS licenses, build modular and scalable offerings, and enable coding in the cloud to reduce carbon footprint.
- Jade Global is a Gold Certified Partner of Microsoft. It helps clients with consulting, implementation, deployment, and development services leveraging the Microsoft cloud platform.
- It has partnered with Boomi to deliver integrated solutions for cloud and on-premises applications and help customers with digital transformation capabilities.

Investments and innovation ★★

- Jade Global has built multiple accelerators to support the application modernization journey of enterprises. These include the J-Assessment tool, which outlines the prerequisite for each application and includes analysis of business benefits, risk factors, and dependencies and provides recommendations basis business, technical, and financial values.
- It has also built JadeMS, a microservices development architecture that helps clients start microservices development instantly. It has integrated DevOps practices into the clients' modernization journey and has provided options for multiple database integration.
- It uses the Jade DevOps plugin for CI/CD pipeline for code deployment, unit test coverage, automation testing, and streamlining feature branch creation.

Kyndryl: RadarView profile

Practice maturity ★★★

Partner ecosystem ★★★★

Investments & innovation ★★★

Has launched Kyndryl Bridge to provide enterprises with real-time insights on complex IT estates, leveraging automation and AI-powered management tools.

Practice overview

- Practice size: 90,000+ total employees
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: 30 CoEs

61,000	~3,200
Cloud skills badges earned	Patents in multicloud management

Client case studies

- Migrated 400 applications and containerized over 4,000 virtual machines to make the IT operations of an Atlanta-based airline company more scalable and flexible. Implementing a container-based cloud strategy enhanced visibility, strengthened security, accelerated speed, and lowered costs.
- Transformed the core financial system of LOTTECARD by leveraging the container-based cloud technology of IBM and Red Hat OpenShift to enhance visibility and scalability. The transformation helped the company accelerate customer workload processing by four times.
- Modernized about 800 applications of a UK-based bank by deploying the Kubernetes platform and leveraging container-based cloud technology. This resulted in a 25% increase in productivity and automated deployment processes.
- Migrated Broadridge Financial Solutions' legacy systems and processes to a private cloud platform on IBM iSeries cloud technology in seven weekends. It enabled 20%–30% faster processing of daily tasks and improved on-demand scalability.

Key IP and assets

- Kyndryl Consult: A consulting and integration framework to help customers in their digital and cloud journey
- Kyndryl Bridge: An open integration platform that leverages data-driven insights to deliver IT solutions

Key partnerships

Cloud platform providers

aws | Microsoft | IBM

Google Cloud | ORACLE

Software providers

SAP | Red Hat | vmware

NetApp | servicenow

Sample clients

- Broadridge Financial Solutions
- Dow
- LOTTECARD
- A British health and beauty retailer and pharmacy chain
- A California-based power utility company
- A global automotive company
- A global energy company
- A UK-based bank
- A US-based state energy company
- An Atlanta-based airline company

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

Kyndryl: RadarView profile

Analyst insights

Practice maturity	★★★

- Kyndryl's application modernization services help enterprises modernize their application portfolio by following multiple steps, including planning, application discovery, and assessment; application development using DevSecOps methodologies; and offering migration, integration, and management capabilities.
- It offers application modernization in multiple phases: discovery, design, deliver, and operate. The discovery phase defines an actionable road map, the design phase identifies the target cloud workloads, the deliver phase focuses on migration and modernization execution, and the operate phase involves continuous testing, deployment, and integrations and provides ongoing support.
- In December 2022, Kyndryl launched cloud-native services to enable enterprises to migrate, modernize, and optimize workloads on hybrid and multicloud environments. It aims to provide cost-effective cloud migration and modernization services by integrating AI-based technology.
- It has launched Kyndryl Bridge to provide enterprises with real-time insights on complex IT estates, leveraging automation and AI-powered management tools. It empowers businesses to navigate the complexities of their IT environments and execute application modernization initiatives.

Partner ecosystem	★★★★

- In May 2023, Kyndryl partnered with Red Hat to leverage the capabilities of Red Hat OpenShift, a container platform, to enhance application modernization services. It aims to automate application modernization through services such as automated containerization and microservices-driven architectures. It also helps simplify the deployment and management of application workloads, providing consistency across operating models and leveraging cloud-native services.
- In June 2022, it partnered with Oracle to provide Oracle Cloud Infrastructure support to clients. The partnership aims to offer innovative services by harnessing Oracle technologies, facilitating the migration of applications to the cloud while enabling the development of industry-specific solutions on Oracle Cloud.
- In May 2022, it partnered with NetApp to develop solutions to access data from platforms and cloud environments to analyze and derive insights from it.

Investments and innovation	★★★

- In October 2022, it developed a hybrid cloud offering Kyndryl Distributed Cloud for Microsoft Azure Stack hyperconverged infrastructure (HCI) in partnership with Microsoft and Dell Technologies. The offering combines the power of Dell PowerEdge servers and Microsoft Azure Stack HCI software to ensure on-premises and remote workload transformation for clients leveraging fully managed distributed cloud services and full-stack life cycle management.
- In August 2022, it partnered with EY to integrate EY's cloud consulting capabilities with its cloud and infrastructure services for better client outcomes.
- It has established a joint innovation lab with Microsoft and VMware to codevelop customer solutions leveraging DevSecOps, ML, big data, and modern application hosting capabilities.

Mphasis: RadarView profile

Mphasis
The Next Applied

AVASANT RADARVIEW™
DISRUPTOR
Application Modernization Services 2023

Practice maturity ★★★★

Partner ecosystem ★★★★

Investments & innovation ★★★

Offers application modernization services with zero-cost transformations, including optimization of enterprise applications without affecting the IT budget and business continuity.

Practice overview

- Practice size: 3000+
- Practice growth: 20% YOY as of March 2023
- Active clients: 70+
- Delivery highlights: Presence in more than 15 countries

$250M–$500M AMS revenue, FY 2022–23

30%–40% AMS revenue YOY growth, FY 2022–23

Client case studies

- Modernized the legacy applications for a global information, insights, and technology provider by deploying a serverless architecture and enabling scalability, optimizing costs, and enhancing performance. The migration to AWS native stack reduced costs by 50%.
- Developed a platform-based solution factory on AWS for a US-based healthcare information systems company to transform its monolithic applications into an agile environment. The solution enabled cost savings by establishing new CI/CD deployment features.
- Migrated a global payments firm from inflexible legacy IBM Iseries and AS400 systems through middleware on AWS. This helped lower the recurring licensing and operational costs while accelerating the time to market. It also enabled faster onboarding of new features with CI/CD.
- Implemented a digital, next-generation, and unified service transformation platform for a freight company to achieve faster time to market. The cloud-native architecture also helped the client move from a process-driven to a data-driven approach.

Key IP and assets

- Krypton™: A cloud migration and modernization platform
- Cloud Migration Assistant: A tool to automate cloud migration readiness assessment
- Microservices Testing Framework: A framework to help end-users test microservices in three steps
- Data Migration Engine (DME): A solution to migrate data from source to target data store for any business application

Key partnerships

Cloud platform providers

aws | Google Cloud
Microsoft | VMware Tanzu

Software providers

snowflake | PEGA
MuleSoft | APPDYNAMICS
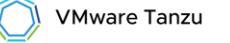
Sample clients

- Blue Cross Blue Shield of North Carolina
- A financial services company
- A freight company
- A global payments firm
- A logistics company
- A US-based consumer bank
- A US-based healthcare information systems company
- A US-based insurance company
- A global information, insights, and technology provider

Industry coverage

- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services

avasant

Mphasis: RadarView profile

Analyst insights

Practice maturity ★★★★

- Mphasis provides end-to-end application modernization services covering the entire application life cycle, starting from assessment and leading to transformation. These include modernization, refactoring, rearchitecting, migration, and retirement of applications.
- It offers IBM mainframe application modernization solutions, including in-place and cloud modernization. It also helps enterprises migrate client-server applications developed in Visual Basic, PowerBuilder, Oracle Forms, Delphi, and MS Access to .NET/JEE platforms
- It enables companies to build and launch low-code/no-code platforms to modernize business processes. It also allows enterprises to automatically extract microservices from Java-based monolithic applications and offers iterative migrations of data from legacy databases to modern cloud-based data platforms.
- It has built several proprietary frameworks, tools, and accelerators: BRE-AD tools for application discovery, business rules extraction, and COBOL version upgrades; Next Gen Transformer for extracting user interface patterns and business and data logic from legacy applications and mapping them to target environment; and CEAD, a code analyzer, explorer, and documenter for mainframe COBOL.

Partner ecosystem ★★★★

- In September 2022, Mphasis launched Mphasis Innovation Lab for VMware Tanzu to facilitate hybrid cloud transformations on Kubernetes. It aims to offer end-to-end cloud consulting services and solutions for enterprises using Tanzu. The innovation lab is part of its strategy to lead cloud-native legacy infrastructure transformations on Kubernetes.
- It has strengthened its partnership with AWS by launching Enterprise Account Factory to ease the development of standardized AWS Account products.
- It has established a Snowflake CoE, a dedicated resource hub for clients leveraging Snowflake's data cloud. This center provides expertise, best practices, and guidance to organizations seeking to maximize the benefits of Snowflake solutions.

Investments and innovation ★★★

- In November 2020, Mphasis acquired Datalytyx to enhance its DataOps methodology and mainframe modernization capabilities and leverage its expertise in Snowflake and Talend environments.
- Talent development is an important area of investment for Mphasis. It has designed and developed a learning experience platform, Talent Next, to boost its capability development initiatives, providing curated and graded training per business requirements.
- It has also invested in building several IPs, tools, and accelerators. For instance, its ATC offering provides clients with application transformation and cloud-based services. It is an end-to-end framework for assessing, planning, and executing application migrations to the cloud.

AVASANT

NTT DATA: RadarView profile

NTT DATA

AVASANT RADARVIEW™
DISRUPTOR
Application Modernization Services 2023

Practice maturity ★★★

Partner ecosystem ★★★★

Investments & innovation ★★★

Uses Nexient's capabilities to augment its application modernization, transformation, and cloud-native development services.

Practice overview
- Practice size: 12,000+ agile practitioners
- Practice growth: N/A
- Active clients: 4,000+ total cloud clients
- Delivery highlights: 160+ mission-critical data centers in over 20 countries:

12 Software applications and tools	5 Patents granted

Client case studies
- Migrated more than 40 critical applications of Jackson National Life Insurance Company to modern code platforms to accelerate digitization and improve application development. It also provided the client with architecture and standards to improve application performance.
- Developed a new Android OS mobile application for Cintas and upgraded its middleware architecture to the SAP Mobile Platform. The modernization of the mobile app increased the productivity of 1,700 first aid and safety (FAS) field employee partners.
- Created and managed the IT infrastructure, provided support for a cloud-native update of the website, and revised the mobile API for smartphone apps of Hilton Hotels and Resorts. This accelerated the time to market for new features from 90 to two days.
- Migrated the mobile app of INDYCAR to a cloud-based platform and provided updates and enhancements to features such as real-time telemetry, the track map, and the live leaderboard. This resulted in improved application performance and fan engagement.

Key IP and assets
- Nucleus Intelligent Enterprise Platform: A platform to streamline the management of public and private clouds, servers, and networking devices
- UniKix: A mainframe application rehosting solution
- Command Center for Applications: A solution providing actionable insights to optimize operations by visualizing analysis of application performance

Key partnerships
Cloud platform providers
aws, Azure, Google Cloud

Technology partners
outsystems, PEGA, appian, snowflake, Qlik, talend, Cardinality.ai, RAFAY

Sample clients
- Blue Cross and Blue Shield of Rhode Island
- Cintas
- Hilton Hotels and Resorts
- INDYCAR
- Integra Lifesciences
- Jackson National Life Insurance Company

Industry coverage
Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ●●●●

AVASANT

NTT DATA: RadarView profile

Analyst insights

Practice maturity ★★★

- NTT DATA offers cloud transformation services, including cloud advisory and business strategy, cloud implementation, DevOps services, cloud management and orchestration, and cloud-native services.
- Its mainframe modernization services include application portfolio assessment and analysis to evaluate enterprise operating costs and risks. This also helps identify gaps and redundancies to optimize business outcomes. It develops an actionable cloud road map and determines a best-fit solution for application rehosting.
- It provides the Nucleus Intelligent Enterprise Platform to manage cloud and hybrid infrastructure. The platform streamlines the management of public and private clouds and servers.
- It launched Deploy Containers for AWS (DCAWS), a service to help customers develop and deploy cloud-native apps on the public cloud within a week. It also plans to develop DCAzure, the Azure version of this service.

Partner ecosystem ★★★★

- In March 2023, NTT DATA partnered with Rafay Systems, a platform provider for Kubernetes management and operations, to streamline Kubernetes operations for enterprises deploying applications in cloud environments, data centers, or edge locations with additional automation, governance, and security capabilities.
- In August 2022, NTT DATA partnered with Cardinality.ai, a data technology company, to accelerate the modernization of government services using cloud-based platforms.
- In 2020, NTT DATA acquired AWS consulting provider Flux7 to augment IT delivery optimization and cloud-native application migration and modernization capabilities. It partnered with AWS to enhance its migration, implementation, and DevOps consulting services capabilities.

Investments and innovation ★★★

- In June 2021, NTT DATA acquired Nexient, a cloud-native company, to augment its application modernization, transformation, and cloud-native application development capabilities.
- In August 2022, it announced a North American Innovation Center to conduct joint R&D and create use cases with clients leveraging advanced technologies. It has also strengthened relationships with universities such as MIT Media Lab for research collaborations.
- As part of its talent development initiatives, It recruits AWS-trained and certified consultants and engineers to skill their technical and nontechnical team members in improving its ongoing AWS operations.

Persistent

AVASANT RADARVIEW™
INNOVATOR
Application Modernization Services 2023

Practice maturity ★★★★

Partner ecosystem ★★★★

Investments & innovation ★★★★★

Leverages Persistent University to offer tailored learning experiences and cloud certifications to upskill and reskill employees to meet specific enterprise needs.

Practice overview

- Practice size: 12,000+
- Practice growth: ~35% YOY
- Active clients: 120
- Delivery highlights: Presence in 18 countries

$500M–$1B
AMS revenue, FY 2022–2023

30%–40%
AMS revenue YOY growth, FY 2022–2023

Client case studies

- Migrated UHG's legacy .NET framework workload to AWS, refactored it to .NET Core, and rearchitected the systems using a serverless framework. Implementing serverless architecture resulted in a 30% reduction in maintenance costs and improved flexibility.
- Performed application assessment for Intuit and refactored its applications for cloud readiness and migrated over 70 applications to the cloud. It enabled cloud-native deployments through containerization and reduced the cost of operations and decommissioned data centers.
- Reengineered Crawford's processes and modernized over 150 legacy applications to improve scalability, performance, UI, and reporting capabilities. It also defined each application's modernization path, improved efficiency by 30%, and enriched customer experience.
- Built templates and enabled automation for Computershare's development teams to onboard over 100 applications across multiple technology stacks to Azure DevOps. It enabled application teams to own CI/CD pipelines, reducing dependency on the DevOps team.

Key IP and assets

- PiCAS: A cloud automation platform
- ExtenSURE: An application modernization and cloud assessment framework
- SUREedge: An accelerator for simplifying the migration of any physical, virtual, and private/public cloud servers or applications
- CloudMo: A framework to provide an end-to-end set of cloud migration templates

Key partnerships

Technology partners

aws | Google | UiPath
MuleSoft | outsystems
appian
salesforce | snowflake

Sample clients

- Avellino
- BeyondTrust
- BoomerangFX
- Crawford
- Computershare
- ICE Mortgage Technology
- Intuit
- Majesco
- Simpplr
- UHG

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services

Analyst insights

Practice maturity	★★★★

- Persistent Systems offers application modernization services leveraging ExtenSURE, an intelligent digital engineering platform that helps enterprises with enterprise modernization journeys. The services include application portfolio rationalization, DevSecOps automation, architecture assessments, modernization planning, legacy implementation analysis, security posture management, and cloud readiness assessments.
- It offers application development services using containerization, microservices, an API-first approach, cloud-native development, MACH software architectures, and DevSecOps. It helps enterprises reduce technical debt through application portfolio rationalization or application reengineering with low-code technologies.
- It assists enterprises in transforming their monolithic legacy applications into scalable Kubernetes microservices platforms, enabling seamless zero-touch deployments and automating IT operations through site reliability engineering.
- It helps clients migrate their applications and data centers to the cloud, taking an automation-led approach using its Cloud Automation Stack. It assists clients in developing a clear road map for ensuring zero disruption during the migration journey.

Partner ecosystem	★★★★

- Persistent Systems has partnered with OutSystems and Appian to enable digital transformation and establish a hyperautomation system. It leverages OutSystems' low-code platform to rapidly develop solutions for data capitalization. It also helps enterprises streamline processes and improve workforce productivity for their clients by combining automation technologies with Appian's low-code/no-code platform.
- It has partnered with Software AG and MuleSoft to provide comprehensive solutions in application integration, IoT, automation, and data engineering, enabling clients to accelerate time to value. It has partnered with Snowflake to support customer needs in building and modernizing its data platforms. The partnership allows Persistent to validate its extract, transform, and load and business intelligence tools for seamless integration with Snowflake.

Investments and innovation	★★★★★

- In March 2022, Persistent Systems acquired MediaAgility to enhance its analytics and AI, cloud-native application development and modernization, managed services, cloud engineering, and migration capabilities.
- In February 2022, it acquired Data Glove to strengthen its position in the market and capitalize on the growing demand for cloud and workplace solutions, particularly in the Azure ecosystem. The acquisition enables it to expand its expertise, establish a new Microsoft business unit, enhance its delivery capabilities, and leverage Data Glove's specialized talent and intellectual property.
- Its Persistent University offers tailored learning experiences and cloud certifications for upskilling and reskilling employees.

TCS: RadarView profile

TATA CONSULTANCY SERVICES

AVASANT RADARVIEW™
LEADER
Application Modernization Services 2023

Practice maturity ★★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★★

Leverages its Machine First Delivery Model™ (MFDM) framework to build, test, and deploy applications on the cloud.

Practice overview

- Practice size: 30,000+ AWS-certified resources, 20,000+ Azure-certified resources
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: TCS ECP has 19 availability zones worldwide

$308M	6,922
Total R&I spend	Patent applications, as of July 2022

Client case studies

- Modernized Equifax UK's identity, verification, and assurance platform to shorten the time to market and improve its growth and revenue potential. It used Google Cloud to create interlinked microservices, APIs, and products to prevent identity fraud, ensuring faster customer onboarding.
- Implemented an on-premises container-as-a-service migration to modernize the legacy applications of Credit Suisse. It migrated the client's repositories to modern control repositories and deployed applications using CI/CD tools. This led to a reduction in the total cost of operations.
- Modernized DuPont's legacy HRM solution using Microsoft 365 and Microsoft Power Platform for a better employee experience. It upgraded the code to handle a higher number of records and new leave types. This led to $113,029 in annual savings and a 100% reduction in manual efforts.
- Replaced Sainsbury's legacy SharePoint platform for workflows with a TCS solution by leveraging the Azure DevOps tool. The new solution helped the client to remove over 7,000 obsolete workflows and track individual productivity.

Key IP and assets

- Cloud Counsel: A cloud assessment framework
- Cloud Mason: A web-based platform for creating cloud foundation-based designs powered by infrastructure-as-a-service/platform-as-a-service models
- TCS MasterCraft™: An intelligent automation product to accelerate end-to-end application modernization

Partnerships/alliances

Cloud platform providers

aws, Azure, Google Cloud, IBM, ORACLE, NUTANIX

Software providers

servicenow, Red Hat, outsystems, MuleSoft, boomi (A Dell Technologies Business)

Sample clients

- Credit Suisse
- DuPont
- Equifax UK
- Sainsbury's
- A European bank
- A multinational HR consulting firm
- A UK-based multinational energy and utility company
- A UK-based shipping enterprise
- A UK-based travel and hospitality company

Industry coverage

- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services

AVASANT

TCS: RadarView profile

Analyst insights

Practice maturity ★★★★★

- TCS application modernization services offer end-to-end services, from legacy application assessment to migration and modernization. It leverages TCS Cloud Counsel for application assessment and identification of migration patterns and uses a Machine First execution model to quickly migrate workloads to Google Cloud. For modernization, it uses TCS Cloud RAMP for accelerated creation and deployment of microservices, containerized workloads, and Anthos services.
- TCS's Cloud Modernization Services leverage its MFDM framework to build, test, and deploy applications on the cloud. Multiple accelerators are available within the framework. These include the modernization propeller, which addresses cloud-based enterprise modernization; Zipped Agile, which facilitates end-to-end DevSecOps setup with preconfigured architectural patterns, pipelines, and technology stacks for hybrid and multicloud scenarios; and Business Ecosystem Integration Services, which aid in identifying and evaluating business cases, defining modernization roadmaps, and implementing integration and API architecture, solutions, and best practices.
- It leverages Apigee to offer full-stack API management, including API assessment and road map, architecture blueprint, and API implementation services.

Partner ecosystem ★★★★★

- In August 2021, TCS and Google Cloud opened Google Garages at the TCS Pace Port™ innovation centers in Amsterdam, Tokyo, and New York. Google Garages combine TCS's domain expertise and Google Cloud's capabilities to develop prototypes for businesses.
- TCS has collaborated with Snowflake to help organizations unify siloed data, securely access and share data, and execute analytic workloads on the cloud.
- It has built TCS Rapid Apps and Automation, a suite of tools to support Microsoft Power users. TCS Power Platform services help enterprises modernize legacy applications on the cloud with a low-code/no-code approach.

Investments and innovation ★★★★

- TCS has invested in sustainability offerings to help enterprises achieve their ESG goals. In July 2022, it launched its ESG Integration Solution on AWS to help financial institutions integrate ESG factors in their investment decisions. The solution provides an ESG data ingestion platform integrated with AWS Data Exchange to analyze investment portfolios against ESG benchmarks.
- In September 2021, TCS introduced an upgraded version of TCS MasterCraft™ TransformPlus, incorporating ML algorithms for application analysis during modernization processes. This new release expands the technology coverage of TransformPlus to include PL1 and AS/400 RPG and enhances the automated refactoring capabilities for COBOL to Java conversions.

AVASANT

RADARVIEW™

Tech Mahindra

AVASANT RADARVIEW™ LEADER
Application Modernization Services 2023

Practice maturity ★★★★★

Partner ecosystem ★★★★

Investments & innovation ★★★★★

Has augmented its capabilities in application development and hybrid cloud automation. Leverages TACTiX to automate IT operations tasks and detect issues.

Practice overview

- Practice size: 40,000
- Practice growth: ~25% YOY
- Active clients: 175+
- Delivery highlights: 1,500+ AWS practitioners

$250M–$500M
AMS revenue, FY 2022–2023

30%–40%
AMS revenue YOY growth, FY 2022–2023

Client case studies

- Revamped a global financial technology solutions provider's existing loan origination portal to help it overcome the challenges arising from legacy systems. The digitization of the lending suite improved the customer experience and reduced costs.
- Helped a European shipping company build an enterprise platform to provide orders and service information to customers and fetch real-time updates from its on-premises and cloud-hosted systems. This reduced customer service and operations teams' efforts by about 25%.
- Replaced a North American railroad company's legacy application stack with modern technologies. It leveraged its LCaaS tool for code analysis and reduced the manual reverse engineering efforts by about 50% and manual errors by 90%.
- Implemented a domain- and event-driven digital architecture enabled by microservices for an American wireless network operator to eliminate monolithic architecture and simplify operations. The revamped architecture optimized operations, reducing costs by up to $15M.

Key IP and assets

- LCaaS: A tool to automate end-to-end legacy code analysis and help identify the size, complexity, intensity, dependency, and stability of various components
- Passport.NXT: A framework designed to assist customers in expediting their enterprise cloud adoption by providing them with the appropriate cloud strategy and assessment

Key partnerships

Technology partners

appian, software AG, salesforce, mx, mendix, outsystems, boomi, MuleSoft

Cloud platform providers

aws, Microsoft, Google Cloud, ORACLE
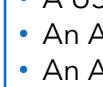
Sample clients

- A European shipping company
- A global financial technology solutions provider
- A grocery retailer in the US
- A US-based logistics company
- An American healthcare company
- An American wireless network operator
- An automobile manufacturer
- An international publishing company
- A North American railroad company

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ●●●●

AVASANT

Analyst insights

Practice maturity ★★★★★

- Tech Mahindra offers end-to-end application modernization services, including assessments related to legacy applications, application portfolios, platform upgrades, data modernization, and cloud-native advisory. It also provides modernization and migration support across AWS, Microsoft, Google Cloud, Oracle, and IBM.
- It leverages several tools and accelerators to modernize enterprises' legacy landscape. It uses the ADOPT platform for DevOps process and tool stack assessment and implementation and leverages accelerators, such as LCaaS, Passport.NXT, MAC, mPAC, UDMF, and AppMod, for analyzing the impact of migration and determining the target state of the application.
- It is strengthening its cloud practice to cater to changing client needs. Its CLOUDNXT.NOW focuses on hybrid cloud advisory services combined with site reliability engineering and DevOps platforms. These solutions have been designed to drive reliability and productivity while controlling costs.
- It has built TACTiX, an AIOps platform, to automate IT operation tasks and detect and prevent issues using ML and NLP capabilities.

Partner ecosystem ★★★★

- Tech Mahindra is a certified partner of AWS, Azure, and Google Cloud, and it has set up dedicated cloud practices with Oracle and IBM.
- It has built an AWS practice with over 500 certified engineers and architects to provide cloud services, including AWS cloud migration assessment and next-generation intelligent managed services, and help enterprises with DevSecOps adoption.
- It has partnered with iPaaS platforms, such as Appian, MuleSoft, Boomi, and Software AG, to enable enterprises with cloud transformations, integration of enterprise applications, legacy application migration, and API management.
- It has partnered with low-code platforms, such as OutSystems and Mendix, for low-code development and digital transformation consulting capabilities.

Investments and innovation ★★★★★

- In January 2023, Tech Mahindra launched a Google Cloud delivery center in Mexico. The center is staffed with Google Cloud-certified engineers who specialize in delivering Google Cloud solutions. Leveraging their expertise, Tech Mahindra helps enterprises accelerate their cloud adoption journey through services such as workload management, infrastructure updates, and cloud-native development using open-source technologies.
- In 2021, Tech Mahindra acquired DigitalOnUS, a hybrid cloud and DevOps services provider, and Brainscale, a cloud transformation consulting company. Through these acquisitions, it plans to augment its capabilities in application development and hybrid cloud automation to help enterprises accelerate their cloud transformation journeys.

Unisys: RadarView profile

AVASANT RADARVIEW™

INNOVATOR

Application Modernization Services 2023

Practice maturity ★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★★

Offers a Cloud Maturity Assessment Service, leveraging its CloudForte Navigator™ tool, that helps clients evaluate their existing cloud infrastructure and determine the best solutions.

Practice overview

- Practice size: 2300+
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: 15 delivery centers worldwide

$500M–$1B	5+
AMS revenue, FY 2022–23	Patents granted

Client case studies

- Offered a mortgage solution and integrated over 90 systems for CAIXA using 280 APIs to retain and expand its 70% mortgage lending market share in Brazil. The solution also resulted in a 35.6% growth in loans granted and helped the client regain market leadership for new loans.
- Deployed Enterprise Content Management Solutions and cybersecurity technology to modernize the Philippine Statistics Authority's Civil Registry System. This reduced the time to fulfill document requirements from 7–10 days to 30 minutes and improved citizen satisfaction.
- Provided managed services, including platform and data center solutions, for a European airline's Passenger Services System (PSS) for its customers. It helped the client increase focus on the airline's core business and enhanced passenger satisfaction.
- Modernized the Common Management System of California State University by deploying hybrid cloud and infrastructure solutions and public cloud migration services to enhance the online campus environment. This resulted in a 60% increase in graduation rates over three years.

Key IP and assets

- CloudForte Accelerators: Digital solution assets to accelerate modernization and cloud migration for clients using a preconfigured environment with secure cloud infrastructure/IaC, templates, policies, automated ops, and best practices
- AIOps: A preconfigured, modularized automation platform
- DevSecOps Framework: A tool to provide cloud migration and cloud-native services

Key partnerships

Platform partners

aws

Microsoft

Solution providers

Clariti

LeanIX

ABACUS.AI

Sample clients

- CAIXA
- California State University
- Globe Life
- National Instruments
- Nevada Department of Public Safety
- Philippine Statistics Authority
- Waka Kotahi New Zealand Transport Agency
- A European airline
- A statutory corporation in Victoria

Industry coverage

- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

AVASANT

Unisys: RadarView profile

Analyst insights

Practice maturity ★★★★

- Unisys has integrated application modernization and development practices in its cloud services. It also focuses on strengthening its capability for cloud-native platforms for AWS and Azure. Its application modernization services include assessment and strategy, migration and transformation, application decomposition, and modernization using DevSecOps-equipped methodology to provide enterprise customers with enhanced user experience.
- Its CloudForte platform, with a modular set of capabilities, is deployed as part of its AI/ML-enabled cloud and infrastructure solutions. The platform modules address client needs at each stage of the cloud journey, from planning and implementation to management and ongoing evolution. It offers value by design, security by default, and compliance at every level. Unisys also provides a Cloud Maturity Assessment Service through CloudForte Navigator, which helps clients evaluate their existing cloud infrastructure and determine the best solutions for their business needs.
- It uses automated tools such as LeanIX for application discovery. It also leverages industry-standard tools and frameworks, such as CAST Highlight and CAST AIP, to assess and redevelop applications for enhanced cloud performance, scalability, and flexibility, modern design and disciplined deployment.

Partner ecosystem ★★★★★

- Unisys plans to list multiple codeveloped solutions in AWS and Azure marketplaces for joint marketing and pipeline expansion with partners. These solutions leverage AWS DevSecOps, Azure Sentinel and security solutions, and Azure Kubernetes services.
- Unisys partnered with Abacus.AI to leverage its expertise in AI and combine it with Unisys' experience in delivering IT services, aiming to provide AI-powered solutions to improve business processes, enhance customer experiences, and optimize operations.
- It has also partnered with Clariti.AI to combine Unisys' expertise in digital transformation services with Clariti's intelligent automation platform. The collaboration aims to offer services including process automation, AI, ML, and RPA to improve operational efficiency and achieve better business outcomes.

Investments and innovation ★★★★

- In December 2021, Unisys acquired CompuGain™ to enhance application modernization and cloud-native agile application development capabilities.
- Unisys invests in the organic development of its cloud-native application development services and architectures. In addition, it develops Azure and AWS data lake modernization and database refactoring for cloud-based data and analytics solutions. It has also invested in developing specialized blueprints for high-intensity workloads with embedded encryption and high availability as part of its cloud management solutions.
- It augments its hybrid cloud capabilities with Unisys Automation Hub, which works across different business units. The hub delivers automation for solutions and platforms by leveraging hyper-automation, scalable processes, transformation capability, data analytics, and process mining.

UST: RadarView profile

UST

AVASANT RADARVIEW™

DISRUPTOR

Application Modernization Services 2023

Practice maturity ★★★★

Partner ecosystem ★★★

Investments & innovation ★★★

Leverages its cloud migration solution UST CloudVelocity to help midsize enterprises migrate workloads to hybrid cloud environments.

Practice overview

- Practice size: 14,000+
- Practice growth: ~12.5% YOY
- Active clients: 160+
- Delivery highlights: Nine CoEs

$250M–$500M	20%–30%
AMS revenue, FY 2022	AMS revenue YOY growth

Client case studies

- Offered modernization assessment and a road map for a US-based payment processing firm, dealing with four mainframe systems versions. It identified all the applications to be modernized with a tool-based approach and eliminated 20% of the huge code base.
- Consolidated multiple commission systems into an enterprise-wide AWS-hosted commission system for a health insurance provider in the US. The consolidation resulted in the elimination of 30 error-prone manual processes affecting $100M of payments annually.
- Performed a detailed discovery assessment with recommendations for a US financial services firm with multiple legacy platforms. It collected data from over 40,000 sources and journaled into a cloud-native enterprise data management platform. This saved over $2M annually.
- Executed application design infrastructure modernization for an American multinational package delivery company with a portal application and outdated tools and processes. It consolidated the information from multiple enterprise systems into a single unified workflow for better visibility.

Key IP and assets

- UST NoSkript™: A test automation tool to hyperscale the testing for large modernization projects
- UST Swift: A tool offering starter kits for Node.js, Java, .Net, Python, React, and Angular
- UST PACE: A platform offering users a common, integrated experience of development accelerators, CI/CD templates, test automation suites, and project status dashboards

Key partnerships

Platform partners

Microsoft
aws
Google Cloud

Technology partners

outsystems

Sample clients

- An American multinational package delivery company
- A health insurance provider in the US
- A US-based payments processing firm
- A US-based remortgage and real estate marketplace
- A US financial services firm
- A US telecom company
- A wholesale club in the Pacific Northwest

Industry coverage

Aerospace & defense
Banking
Financial services
Government
Healthcare & life sciences
High-tech
Insurance
Manufacturing
Nonprofits
Retail & CPG
Telecom, media & entertainment
Travel & transportation
Utilities & resources

Darker color indicates higher industry coverage through digital services ● ● ● ●

AVASANT

UST: RadarView profile

Analyst insights

Practice maturity ★★★★

- UST application modernization services include modernization assessment and road map, discovering and assessing the application landscape, evaluating the current state of architecture, and developing, integrating, and deploying applications.
- It leverages Blue Age and Modern Systems tools for easy legacy application analysis and effortless conversion to programming languages such as Java.
- It has adopted a three-tiered robust governance framework to manage large-scale technology transformation programs catering to different business and service lines. It enables the project teams to tailor offerings to customer needs.
- It also leverages UST CloudVelocity, a cloud migration solution offering tools and blueprints to help midsize enterprises move rapidly to a hybrid cloud posture, and UST CloudOptim, a cloud infrastructure cost optimization solution.
- UST CloudVelocity adopts an automated approach to assess, analyze, and move workloads. Similarly, UST Multicloud Manager provides automated provisioning, workflow orchestration, compliance management, and AIOps.

Partner ecosystem ★★★

- In February 2022, UST signed a multiyear agreement with AWS to develop new industry-specific solutions to help enterprises migrate and modernize on AWS. As part of the agreement, UST will make its platforms, including UST PACE, UST IQ™, SmartOps™, and CyberProof, available on the AWS marketplace.
- It aims to enhance its talent pool by partnering with leading institutions such as BITS India and providing live projects to its students.
- UST has partnered with Google Cloud to develop a cloud-native solution by leveraging Google Cloud's Chronicle Security Information and Event Management platform. The platform helps UST build and run applications on premises, Google Cloud, and other clouds.
- It has also collaborated with Semantic Designs to enhance its mainframe modernization services.

Investments and innovation ★★★

- In February 2021, UST acquired the ServiceNow business of abhra, Inc., an IT automation solutions company focused on SaaS implementations. UST leverages abhra's capabilities to augment its proprietary automation platforms and customers' home-grown platforms.
- UST has invested in a cloud CoE to develop new accelerators, IPs, best practices, and reference templates; resolve engineering issues; and build thought leadership practices.
- It has also invested in building a team of CloudStack engineers to develop cross-skilled resources, meet clients' demands, and fulfill internal requirements. This will help UST offer diverse career paths to its employees across technology stacks (Azure, AWS, GCP, Alibaba, and Oracle).

Virtusa: RadarView profile

Virtusa

Avasant RadarView™ CHALLENGER — Application Modernization Services 2023

Practice maturity ★★★

Partner ecosystem ★★★

Investments & innovation ★★★

Leverages its cloud migration factory that provides repeatable processes and reusable artifacts for cloud migration.

Practice overview

- Practice size: 35,000+ Total employees
- Practice growth: N/A
- Active clients: N/A
- Delivery highlights: Presence in America, EMEA, and APAC

5+	10+
Tie-ups with universities	Cloud partners

Client case studies

- Replaced the application of a media company with an architected web application framework by leveraging the AWS Serverless Architecture stack. This accelerated development cycles and reduced maintenance costs for the client.
- Implemented microservices by leveraging container technology with CI/CD for infrastructure and application at a European bank. The cloud-agnostic solution and enhanced support for application containers using dockers with Kubernetes resulted in 35% cost savings.
- Modernized the existing AS/400 applications of an international home decor retailer to enhance customer experience and improve store operations. It also developed a single code-based web application for store operations that helped eliminate manual processes.
- Built an API-enabled, microservices-based framework, iHub, to enable integrations across the systems of Reliance Standard Life Insurance Company and its partners. This reduced the time to market by four weeks and optimized maintenance costs.

Key IP and assets

- FAST (Framework-assisted solution templates): A solution to generate code in any language and for any cloud
- Container FastTrack: A multicloud automated containerization platform
- Open Innovation Platform (OIP): An API marketplace and low-code platform solution

Key partnerships

Technology partners

PEGA MuleSoft SAP snowflake salesforce ORACLE

Cloud platform providers

aws Azure Google Cloud

Sample clients

- Reliance Standard Life Insurance Company
- A European bank
- A media company
- A Middle Eastern bank
- A multinational pharmaceutical company
- A US-based telecom retail company
- An Australian bank
- An international home decor retailer

Industry coverage

- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services ●●●●

avasant

Virtusa: RadarView profile

Analyst insights

Practice maturity	★★★

- Vitusa offers end-to-end application modernization services. It enables application discovery and analysis by identifying dependencies between applications and processes on different servers. It also offers automated refactoring at the code, process, and platform levels. This environment is set up using Virtusa Pattern as a code (vPaaC) by integrating DevOps and security and provides automated deployment of containerized applications.
- Virtusa cloud migration factory model leverages repeatable processes and reusable artifacts for cloud migration post-application assessment. It also helps companies migrate and re-engineer AS400 applications to an open-source Java-based technology in the cloud.
- Its DevOps strategy, assessment, and implementation help optimize cloud engagements by evaluating the current DevOps maturity and creating a road map for cloud implementation of DevOps managed services.
- It leverages several proprietary tools and accelerators for application modernization. These include the following: vGovern, an AI-powered cloud management platform for cloud ops, finops, and secops; Digital Product Workbench, an API marketplace; and a low-code platform.

Partner ecosystem	★★★

- Virtusa has collaborated with AWS, Azure, and Google Cloud to help clients select the right cloud service for application migration and modernization initiatives.
- In March 2023, it achieved the AWS Managed Service Provider designation. Its managed services offering on AWS include infrastructure management, application support, security and compliance, data management and analytics, and DevOps automation.
- It has collaborated with various technology companies, such as AppDynamics, for application performance and user monitoring solutions and with Snowflake to help organizations unify siloed data, securely access and share data, and execute analytic workloads on the cloud.
- It has further deepened its partnership with Microsoft to coinvest in solutions across the Microsoft platform and support clients in digital transformation.

Investments and innovation	★★★

- In February 2021, Virtusa partnered with universities in India to upskill the workforce in digital technologies and offer internships on several projects.
- It has built a lightweight Visual Studio code extension, Ansible Studio accelerator, for configuration management and automation of polycloud infrastructure.

Wipro: RadarView profile

wipro

AVASANT RADARVIEW™

LEADER

Application
Modernization
Services
2023

Practice maturity ★★★★★

Partner ecosystem ★★★★★

Investments & innovation ★★★★

Has launched Wipro FullStride Cloud Services to bolster its cloud strategy offerings and strengthen the application, data modernization, cloud security, and orchestration capabilities.

Practice overview

- Practice size: 40,000+
- Practice growth: ~15% YOY
- Active clients: 820+
- Delivery highlights: 97 delivery centers in five regions worldwide

>$1B AMS revenue, as of March 2023	10%–20% AMS revenue YOY growth

Client case studies

- Provided multitenant, event-driven, microservices-based architecture to a telephone operator and mobile network provider dealing with legacy monolithic applications. This led to reduced technical debt and improved time to market and application performance.
- Leveraged a cloud migration framework, a containerization accelerator, and a migration factory approach to make the digital channels of an American national bank agile. The solution involved rearchitecting and rolling out high-performance APIs for shared business capabilities.
- Helped a multinational universal bank migrate over 300 applications running on an older version of JDK to a newer version and upgrade application servers and technology stack. This reduced migration cycle time by 20%, leading to reduced licensing costs and faster time to market.
- Implemented an end-to-end application modernization solution at a multinational electricity and gas utility company. It reengineered the solution with .NET Core and SSIS for batch processing to replace the legacy technology stack. This reduced batch processing time by 50%.

Key IP and assets

- Cloud Studio: A phygital studio including collaboration pods and experience zones
- Application Migration Toolkit: A tool to address acceleration and pattern-based code profiling needs and ensure remediation for Java-based applications
- Application Development Toolkit: A home-grown tool to address acceleration/automation needs of Java-based development programs

Key partnerships

Cloud platform providers

aws   Google Cloud

Software partners

salesforce   SAP   Red Hat

docker   vFunction

EVOLVEWARE   HashiCorp Terraform

Sample clients
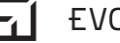
- A British financial institution
- A multinational automotive manufacturer
- A multinational electricity and gas utility company
- A multinational universal bank
- An American national bank
- An American commercial real estate services company
- A telephone operator and mobile network provider
- A UK-based retail and commercial bank

Industry coverage

- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources

Darker color indicates higher industry coverage through digital services ●●●●

AVASANT

Wipro: RadarView profile

Analyst insights

Practice maturity ★★★★★

- In July 2021, Wipro launched Wipro FullStride Cloud Services to bolster its cloud strategy offerings. The initiative aims to foster partner relationships; invest in talent, execution, and mergers and acquisitions; and strengthen advisory services, cloud security, application, data modernization, and orchestration capabilities.
- It offers legacy application modernization services that aim to optimize the enterprise's mainframe applications through rehosting, reengineering, and refactoring application code. It deploys applications to open systems such as Linux, Unix, and Windows.
- It offers platforms and accelerators that operate across the entire cloud life cycle. These include Cloud Studio for cloud migration services, Enterprise Digital Operations Center for running applications on the cloud seamlessly, RapidOps for DevOps, and Surfonomics for FinOps capabilities.
- Wipro Cloud Studio leverages partner tools such as BMC and Matilda for application and infrastructure discovery. It leverages its proprietary Application Migration Toolkit and DevNXT accelerator to enable migration and validation.
- It has invested in niche partners such as vFunction to leverage its AI-based platform to deconstruct monolithic architecture to create microservices architecture.

Partner ecosystem ★★★★★

- Wipro has collaborated with leading cloud platform providers, such as AWS, Microsoft Azure, and Google Cloud, to help enterprises with cloud consulting, migration, and managed services capabilities.
- It is augmenting its automation capabilities to address client requirements by partnering with niche technology providers, such as Terraform for infrastructure-as-code, OpenStack for platform-as-a-service, Docker for container management, and Kubernetes for orchestration capabilities.
- It has established C3 Modernization, a joint initiative with Red Hat, to address several key areas of modernization and cloud enablement. (C3 stands for containerization, cloud enablement, and cost optimization.)

Investments and innovation ★★★★

- Wipro has strengthened its market presence and domain and delivery capabilities by acquiring companies such as Capco, Edgile, Ampion, IVIA, and Rizing. These acquisitions have strengthened Wipro's expertise in specific domains and technologies. For instance, Capco added 5,000 professionals with expertise in the BFSI and energy sectors. Edgile brought in 1,000 cybersecurity experts, and Rizing provided expertise in the SAP domain. This has allowed the company to cross-sell/upsell to its existing clients besides gaining access to customers of the acquired entities.
- Wipro leverages its plug-and-play platforms extensively to enable cloud adoption through a single platform. These include global cloud studio platforms in the US, the UK, and Bangalore for faster cloud assessment and migration and BLE ServiceTheater with over 250 readymade playbooks.

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Appendix:
About RadarView

Practice maturity

- This dimension considers the current state of a provider's AMS practice in terms of its strategic importance for the provider, the maturity of its offerings and capabilities, and client engagement.
- The crucial aspects in this dimension are the width and depth of the client base, usage of proprietary/outsourced tools and platforms, and quality of talent and execution capabilities.

Partner ecosystem

- This dimension assesses the nature of the ecosystem partnerships of the provider, the objectives of the partnerships (codevelopment and co-innovation), and its engagement with solutions providers, startup communities, and industry associations.
- Vital aspects in this dimension are the evaluation of joint development programs around offerings, go-to-market approaches, and the overall depth of partnerships.

Investments and innovation

- This dimension measures the strategic direction of investments and resultant innovations in the offerings and commercial model and how it aligns with the future direction of the industry.
- The critical aspects of this dimension include both organic and inorganic investments toward capability and offering growth, technology development, and human capital development, along with innovative solutions developed with strategic partners.

Research methodology and coverage

Avasant based its analysis on several sources:

Public disclosures
Publicly available information such as Securities and Exchange Commission (SEC) filings, annual reports, quarterly earnings calls, and executive interviews and statements

Market interactions
Discussions with enterprise executives leading digital initiatives and influencing service provider selection and engagement

Provider inputs
Inputs collected in December 2022 through an online questionnaire and structured briefings in January–March 2023

Of the 34 service providers assessed, the final 23 featured in the Application Modernization Services RadarView for 2023 are:

accenture | Capgemini | cognizant | DATAMATICS

Deloitte. | EVIDEN an atos business | GAVS | HCL.Tech

HEXAWARE | HITACHI Inspire the Next | IBM | Infosys

JADE | kyndryl | Mphasis The Next Applied | NTT DaTa

Persistent | tcs TATA CONSULTANCY SERVICES | Tech Mahindra | unisys

UST | virtusa | wipro

Note: Assessments for Accenture, Capgemini, Deloitte, IBM, Hexaware, IBM, TCS, and Virtusa were conducted based on public disclosures and market interactions only.

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Reading the RadarView

Avasant has recognized service providers in four classifications:

Leaders show consistent excellence across all key dimensions of the RadarView assessment (practice maturity, partner ecosystem, and investments and innovation) and have had a superior impact on the marketplace. These providers have shown true creativity and innovation and have established trends and best practices for the industry. They have proven their commitment to the industry and are recognized as thought leaders in their space, setting the standard for the rest of the industry to follow. Leaders display a superior quality of execution and a reliable depth and breadth across verticals.

Innovators show a penchant for reinventing concepts and avenues, changing the very nature of how things are done from the ground up. Unlike leaders, innovators have chosen to dominate a few select areas or industries and distinguish themselves through superior innovation. These radicals are always hungry to create pioneering advancements in the industry and are actively sought after as trailblazers, redefining the rules of the game.

Disruptors enjoy inverting established norms and developing novel approaches that invigorate the industry. These providers choose to have a razor-sharp focus on a few specific areas and address those at a high level of granularity and commitment, which results in tectonic shifts. While disruptors might not have the consistent depth and breadth across many verticals like leaders or the innovation capabilities of innovators, they exhibit superior capabilities in their areas of focus.

Challengers strive to break the mold and develop groundbreaking techniques, technologies, and methodologies on their way to establishing a unique position. While they may not have the scale of the providers in other categories, challengers are eager and nimble and use their high speed of execution to great effect as they scale heights in the industry. Challengers have a track record of delivering quality projects for their most demanding Global 2000 clients. In select areas and industries, challengers might have capabilities that match or exceed those of the providers in other categories.

Key contacts

A. Tarun
Senior Analyst
a.tarun@avasant.com

Bertrand Leroux
Former CIO, Activision Blizzard, and
Distinguished Fellow at Avasant
bertrand.leroux@avasant.com

Henry Guapo
Managing Partner
henry.guapo@avasant.com

Robert Devers
Prinicpal, Avasant
rob.devers@avasant.com

Gaurav Dewan
Research Director
gaurav.dewan@avasant.com

Swapnil Bhatnagar
Senior Research Director
swapnil.bhatnagar@avasant.com

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