ŽSG Provider Lens™

Life Sciences Digital Services

Patient Engagement Digital Transformation Services

Global. 2021

Quadrant Report















Customized report courtesy of:



A research report comparing provider strengths, challenges and competitive differentiators

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The research and analysis presented in this report includes research from the ISG Provider Lens™ program, ongoing ISG Research programs, interviews with ISG advisors, briefings with services providers and analysis of publicly available market information from multiple sources. The data collected for this report represents information that ISG believes to be current as of September 2021, for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time, but those changes are not reflected in this report.

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

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ISG Provider Lens

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- **1** Executive Summary
- 3 Introduction
- **14** Patient Engagement Digital Transformation Services
- **28** Methodology

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EXECUTIVE SUMMARY

Digital: The New Engine Behind The Life Sciences Business

As the world moved into year two of the COVID-19 pandemic, all segments of the life sciences industry showed dramatic strategy and process adaptations to the new normal. The adoption of digital technologies to facilitate the pace of change and deliver competitive advantage and increased efficiencies provided the foundation for much of this new way of working. Significant mergers and acquisitions focused on enabling rapid scale-up of digital expertise and innovation. Challenges such as the need to rapidly implement telemedicine and enable direct-to-patient data collection while maintaining cybersecurity have put new constraints on technology providers and have increased demands for digital solutions. Added to this are challenges that, while not always specific to the life sciences industry, have a significant impact on business continuity and profitability. These include the implementation of digital clinical trials, dramatically increased levels of patient engagement, supply chain dysfunction and increased dependence on AI, machine learning (ML) and automation to enhance operations in MedTech, pharmacovigilance and regulatory affairs.

The Leaders in each of these quadrants were able to rapidly implement digital solutions as a result of their existing investments and strategies focused on developing digital offerings prior to the pandemic. Some of these firms leveraged solutions they were already providing

in other sectors to support the sudden shift to digital in the life sciences industry. Some providers that are purely life sciences service-oriented, such as the leading global contract research organization (CROs), or those that have developed substantial life science-specific offerings, were already deeply invested in digital roadmaps based on their own understanding of where the market would need to go to achieve necessary efficiencies and economies of scale. The pandemic provided the impetus for the industry to meet these Leaders at a point of delivery that might otherwise have taken several more years to attain.

The increased reliance on digital technologies is associated with other trends across the life sciences quadrants evaluated. There is an increased demand for cloud services in the industry to support the needs of a growing remote workforce and for additional computing power. Changing business needs have also elevated the demand for Software as a Service (SaaS) solutions that can rapidly provide digital power in expert domains and facilitate turning large volumes of data into business intelligence. In addition to investments in technology, services, tools and skillsets, interest and sophistication in the use of advanced analytics, AI and automation is rapidly rising to expert levels across

the talent continuum, not just within IT. The new face of the customer is a digitally-savvy subject matter expert (SME), and providers that can exceed this customer's expectations are the Leaders in their respective quadrants. The quadrant trends are highlighted below.

Within the **Clinical Development** quadrant two major trends — digital clinical trials and the advantages of implementing advanced analytics — require both CROs and technology providers to offer standardized, but customizable, solutions that clients can rapidly implement. Leaders in this quadrant, such as Accenture, Cappemini, Cognizant, HCL, IQVIA, PPD, TCS and Wipro, also offer strong change management support and active measures of early and ongoing success. Hexaware is a Rising Star.

With the overarching goal of improving patient experience and outcomes, digital services providers in the **Patient Engagement** quadrant have been focusing on remote monitoring, using devices, wearables, sensors and smart pills as some of the direct-to-patient ways to help ensure compliance and patient retention. Leaders in this quadrant, which include Atos, Capgemini, Cognizant, HCL, Hexaware, IQVIA, PPD, TCS and Wipro demonstrate deep knowledge of digital enablement, regulatory requirements and the patient experience. Verizon is a Rising Star.

Well-documented supply chain and logistics challenges have raised the demand for business intelligence in the **Manufacturing Supply Chain quadrant.** The use of sensors to monitor real-time shipping data, combined with expertise in advanced analytics sets apart Leaders such as Accenture, Atos, Capgemini, Cognizant, HCL, TCS and Wipro. LTI is a Rising Star.

Collaborations between traditional IT providers and global CROs, often including representation from industry and academia, continue to grow as the leading providers in these areas leverage their combined expertise. The emphasis on improving patient outcomes by combining deep domain expertise with digital enablers is seen among all the Leaders in these quadrants. The accelerated pace of change demanded as a result of the COVID-19 pandemic has created so many new points of entry that Leaders are increasingly pursuing multiple models to expand their capacity for innovation.

Introduction



Source: ISG 2021

Definition

The life sciences industry is under increasing pressure to change. The COVID-19 pandemic and public demand for more effective outcomes are mandating the acceleration of actions needed to better meet care lifecycle requirements and build patient-centric business models. All segments of the industry are being compelled to comply with new regulations and to deal with emerging sources of competition, integrate waves of competitive mergers and acquisitions, and adapt to the needs of an aging population. The efforts required to deal successfully with each of these challenges are expensive. At the same time, consumers are increasingly expecting advanced and convenient digital service delivery. Life sciences companies are increasingly relying on innovation to stay apace with the rising demand for their services and mounting competitive pressures.

Definition (cont.)

As new business approaches take hold, regulatory hurdles and cost pressures will continue to be higher and more complex. The competitive landscape has never been more dynamic and global. In this context, innovation is imperative. Biopharma companies, CROs and other life sciences ancillary suppliers will face increasing pressures to expand and extend current investments. MedTech companies should continue to focus on the efficiency of the supply chain and recognize that innovation is the key to growth and survival.

Successful organizations in the life sciences industry have been meeting these challenges with the following:

- Driving targeted investments and constant cost control
- Using advanced technology and digital operating models as a platform for transformation
- Focusing on improved and innovative patient engagement
- Optimizing supply chain operations

Digital transformation helps address many of the current and anticipated industry challenges. In the life sciences industry, digital transformation services are already playing a key role across multiple areas to help accelerate clinical development. Digital transformation is also making fundamental changes to how pharmacovigilance and regulatory affairs activities are conducted. Furthermore, recent technology trends such as connectivity, including mobile enablement or advanced analytics, provide innovation opportunities for MedTech companies. As the impact of COVID-19 has shifted the concept of "customer" more directly onto the patient, life sciences enterprises are increasingly relying on digital transformation to conduct their operations, support regulatory obligations and help ensure business outcomes.

Definition (cont.)

Scope of the Report

While many organizations may initially pilot digital solutions with internal resources, the need for expertise, scale, innovation, flexibility and cost efficiency often point toward an outsourced solution. This study focuses on accelerated clinical development, patient engagement and manufacturing supply chain services.

Participating service providers are evaluated on how they are an extension of a client's technology organization and involved in creating blueprints, architecture frameworks and management processes. They are also measured on factors such as brand recognition in the markets under study, market reach and the number and quality of clients. They are evaluated on thresholds of annual revenue, assigned professionals (resources) and R&D investments.

The ISG Provider Lens™ study offers technology decision-makers the following:

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Perspective on different markets, including global, the U.S. and EU

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

Provider Classifications

The provider position reflects the suitability of IT providers for a defined market segment (quadrant). Without further additions, the position always applies to all company sizes classes and industries. In case the IT service requirements from enterprise customers differ and the spectrum of IT providers operating in the local market is sufficiently wide, a further differentiation of the IT providers by performance is made according to the target group for products and services. In doing so, ISG either considers the industry requirements or the number of employees, as well as the corporate structures of customers and positions IT providers according to their focus area. As a result, ISG differentiates them, if necessary, into two client target groups that are defined as follows:

- **Midmarket**: Companies with 100 to 4,999 employees or revenues between US\$20 million and US\$999 million with central headquarters in the respective country, usually privately owned.
- Large Accounts: Multinational companies with 5,000 or more employees or revenue above
 US\$1 billion, with activities worldwide and globally distributed decision-making structures.

Provider Classifications

The ISG Provider Lens™ quadrants are created using an evaluation matrix containing four segments (Leader, Product & Market Challenger and Contender), and the providers are positioned accordingly.

Leader

Leaders have a comprehensive product and service offering, a strong market presence and established competitive position. The product portfolios and competitive strategies of Leaders are strongly positioned to win business in the markets covered by the study. The Leaders also represent innovative strength and competitive stability.

Product Challenger

Product Challengers offer a product and service portfolio that reflect excellent service and technology stacks. These providers and vendors deliver an unmatched broad and deep range of capabilities. They show evidence of investing to enhance their market presence and competitive strengths.

Market Challenger

Market Challengers have a strong presence in the market and offer a significant edge over other vendors and providers based on competitive strength. Often, Market Challengers are the established and well-known vendors in the regions or vertical markets covered in the study.

Contender

Contenders offer services and products meeting the evaluation criteria that qualifies them to be included in the IPL quadrant. These promising service providers or vendors show evidence of rapidly investing in both products and services and a sensible market approach with a goal of becoming a Product or Market Challenger within 12 to 18 months.

Provider Classifications (cont.)

Each ISG Provider Lens™ quadrant may include a service provider(s) which ISG believes has strong potential to move into the Leader quadrant. This type of provider can be classified as a Rising Star. Number of providers in each quadrant: ISG rates and positions the most relevant providers according to the scope of the report for each quadrant and limits the maximum of providers per quadrant to 25 (exceptions are possible).

Rising Star

Rising Stars have promising portfolios or the market experience to become a Leader, including the required roadmap and adequate focus on key market trends and customer requirements. Rising Stars also have excellent management and understanding of the local market in the studied region. These vendors and service providers give evidence of significant progress toward their goals in the last 12 months. ISG expects Rising Stars to reach the Leader quadrant within the next 12 to 24 months if they continue their delivery of above-average market impact and strength of innovation.

Not In

The service provider or vendor was not included in this quadrant. Among the possible reasons for this designation: ISG could not obtain enough information to position the company; the company does not provide the relevant service or solution as defined for each quadrant of a study; or the company did not meet the eligibility criteria for the study quadrant. Omission from the quadrant does not imply that the service provider or vendor does not offer or plan to offer this service or solution.

Life Sciences Digital Services - Quadrant Provider Listing 1 of 2

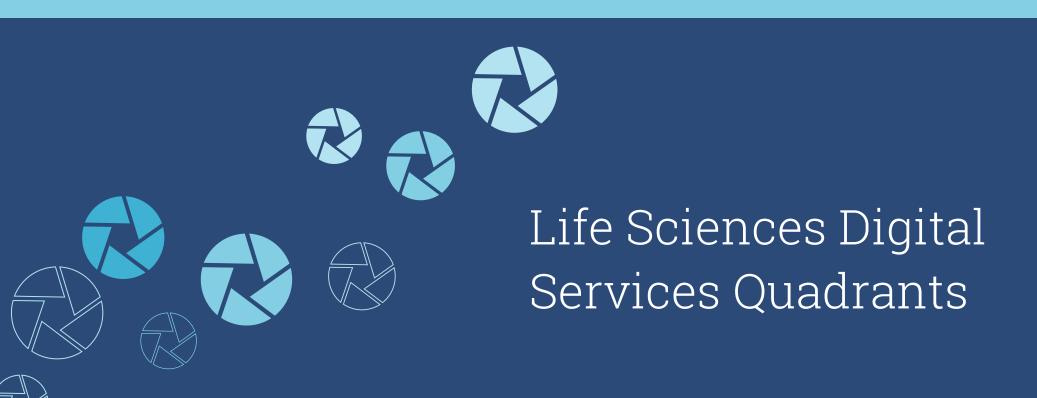
	Clinical Development Digital Transformation Services	Patient Engagement Digital Transformation Services	Manufacturing Supply Chain Digital Transformation Services
Accenture	Leader	Market Challenger	Leader
Apexon	Contender	Product Challenger	Not in
Atos	Market Challenger	Leader	Leader
Birlasoft	Contender	Product Challenger	Product Challenger
Capgemini	Leader	Leader	Leader
CGI	Not in	Contender	Contender
Cognizant	Leader	Leader	Leader
Conduent	Not in	Product Challenger	Not in
DXC	Not in	Market Challenger	Product Challenger
Genpact	Not in	Product Challenger	Market Challenger
Harman	Market Challenger	Market Challenger	Contender
HCL	Leader	Leader	Leader
Hexaware	Rising Star	Leader	Not in
IBM	Market Challenger	Not in	Not in



Life Sciences Digital Services - Quadrant Provider Listing 2 of 2

	Clinical Development Digital Transformation Services	Patient Engagement Digital Transformation Services	Manufacturing Supply Chain Digital Transformation Services
ICON	Market Challenger	Product Challenger	Not in
IQVIA	Leader	Leader	Not in
LTI	Not in	Product Challenger	Rising Star
Mphasis	Contender	Contender	Product Challenger
NTT DATA	Product Challenger	Product Challenger	Product Challenger
Persistent	Contender	Product Challenger	 Product Challenger
PPD	Leader	Leader	Not in
Stefanini	Not in	Product Challenger	 Product Challenger
TCS	Leader	Leader	Leader
Tech Mahindra	Product Challenger	Product Challenger	Product Challenger
Verizon	Not in	Rising Star	Not in
Wipro	Leader	Leader	Leader
Zensar	Not in	Product Challenger	Contender





ENTERPRISE CONTEXT

Patient Engagement Digital Transformation Services – Global

This report is relevant to enterprises across industries, globally, for evaluating providers of digital transformation services around patient engagement.

In this quadrant report, ISG highlights the current market positioning of providers that offer digital transformation services in the global patient engagement space.

In response to COVID-19, healthcare practitioners are increasingly focusing on patient engagement and retention by leveraging digital solutions. The evolution of technology and its corresponding impact on the healthcare ecosystem is increasing patient participation in decision-making regarding their treatment and also overhauling their expectations from healthcare companies. At the same time, these companies require access to global content and the required regulatory approval. They also face the challenge of a coordinated patient care and experience across geographies.

The patient engagement technology market is expected to grow as the healthcare industry witnesses a rapid shift to a value-based reimbursement system, from the traditional volume-based fee system. The adoption of patient engagement technology enables the healthcare industry to reduce costs, while improving the quality of healthcare. The technology also provides positive ROI.

In the healthcare ecosystem, life sciences companies and healthcare providers have the opportunity to truly integrate patient engagement processes and other digital solutions and insights from data to improve patient outcomes.

Life science leaders should read this report to understand the relative positioning and capabilities of providers, enabling them to select the appropriate services and solutions related to patient engagement.

Start-up digital health innovators should read this report to understand the leading and emerging areas of investment, challenges faced by patient engagement innovators and the key to long-term success for innovators.

Pharma and MedTech companies should read this report to have a deeper understanding of end-user solutions and create business models that enhance patient outcomes and create value for key healthcare stakeholders, while ensuring patient safety, quality and compliance.

Security and R&D leaders should read this report to understand the way service providers address the significant challenges of compliance and security, while maintaining a seamless experience for end users.

IT and digital transformation professionals should read this report to understand how providers of patient engagement services fit in with their digital transformation initiatives and how they can be compared with one another.

Sourcing, procurement, and vendor management professionals should read this report to develop a better understanding of the current landscape of providers offering digital transformation services for patient engagement.



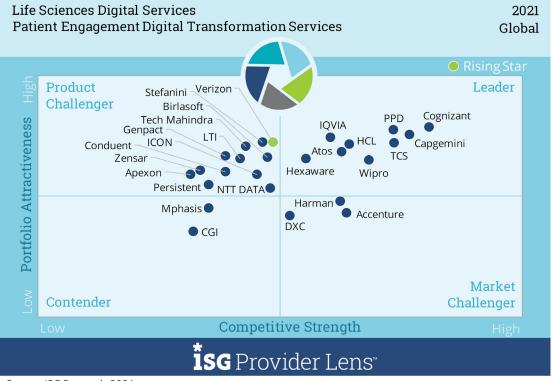






Definition

This quadrant assesses service providers that focus on life science customer services using supporting processes and platforms. Life science companies are engaging directly with patients to improve their products and patient outcomes. The end goal is to improve patient experience during the development lifecycle all the way through outcomes, in collaboration with providers. With changes emerging from the pandemic, life science companies are leveraging remote monitoring for patient enrollment and engagement, while monitoring is done via connected sensors at home or in care facilities. In addition to enhancing enrollment and participation in clinical trials, improved patient engagement helps ensure compliance with therapies and reduces drop-out rates. Digital medicine is also an emerging area, with broader use of smart pills and wearables. Robotics and drones have the potential for enhancing the collection and value of data and therapeutic delivery. The connected technologies require secure, efficient and compliant data exchange to inform stakeholders in the patient care lifecycle, while adhering to regulations.



Source: ISG Research 2021



Eligibility Criteria

- Ability to build a differentiated patient experience
- Capability to select, implement and manage patient engagement services and platforms
- Adept at providing consumer-friendly interactions with digital services
- Deep knowledge of device technologies and ability to develop suitable device strategies
- Competencies in device security and data privacy measures
- Ability to share data and analyses in an integrated ecosystem for communication, education and marketing.

Observations

Patient engagement is often viewed from the context of clinical development, where it covers functions such as patient enrollment, medication adherence and remote patient monitoring. These functionalities like the ones mentioned can also be used as a part of a solution during the ongoing marketing of a pharmaceutical product. For example, capturing vital signs by remote patient monitoring can be an integral part of the medication. Therefore, some CROs, with rich experience in this aspect, have evolved as significant players in this market. Crucial factors determining the success of the solutions provided are mobile enablement, in general, and integration of consumer devices (for example, smartphones and wearables) in particular. Hence, cooperation with device manufacturers is highly important for service providers.

Observations (cont.)

The following providers achieved Leader positions in this quadrant:

- Atos provides a complete set of functionalities across the entire patient journey, combined on a virtual care platform. Based on its deep knowledge and broad experience on the infrastructure level and in IoT scenarios, Atos offers numerous solutions that enable comprehensive integration of wearables, sensors and other devices.
- Capgemini follows a strong patient-centric approach that integrates connected devices and the user interfaces for mobile and web around a patient. The company has shown significant growth in terms of capacity and the scope of functions covered, especially following the acquisition and fast integration of the engineeringfocused company, Altran.

- Cognizant offers a device-agnostic Internet of Medical Things (IoMT) platform that is compliant with all relevant regulations and covers remote device management for medical-grade and consumer-grade devices (wearables and smartphones). In the context of patient services, Cognizant is co-creating a solution for digital health support, based upon the ServiceNow platform.
- HCL offers a complete spectrum of patient engagement solutions along the entire process chain, from
 consulting over design and implementation to operational support. With the Connected Care Suite, HCL
 provides a solution that drives the relationship between patients and physicians and ensures end-toend patient engagement.
- Hexaware has been one of the early innovators in combining digital capabilities with pharmaceutical products (digital therapeutics). Its solutions entail a high level of automation that enable clients to reduce running costs significantly.
- IQVIA offers a comprehensive tool for use during clinical studies that includes functionalities such as telemedicine, patient eDiaries and questionnaires. The company's portfolio includes various solutions that take a data-oriented approach toward life-sciences-specific functionalities.

Observations (cont.)

- PPD's portfolio includes a variety of solutions that primarily support interactions with patients that participate in clinical studies. PPD gives high consideration to an efficient supply chain operation in the context of patient engagement. Direct-to-patient (DTP) shipments are an integral part of this strategy.
- TCS, with its Health360 platform, provides patient-centric functionalities such as remote patient monitoring, telehealth and customized care programs. Effective integration is achieved by cloud-based data management, focusing on automated collection of patient-related data.
- Wipro uses its broad IoT capabilities to offer an integrated solution that helps to continuously monitor and capture high volumes of biometric data and health indicators from connected devices, wearables and health applications. In general, Wipro gives high priority to achieving efficiency in all relevant solutions by utilizing automation.

The following provider has positioned itself as a Rising Star in this quadrant and exhibits the potential to achieve a leader position in future.

Verizon can rely upon its outstanding portfolio of connectivity and mobile device technologies. Its roadmap includes various functionalities that enhance the technological capabilities around connectivity by content- and data-management-driven solution components, including the technology backbone, for example, cloud databases.

ATOS



Overview

Atos is a global IT and consulting provider of infrastructure and applications. The company's portfolio covers all phases of digital transformation, from analysis and design to implementation and support. It offers cloud, cybersecurity and computing solutions comprising orchestrated hybrid cloud, big data, business applications and digital workplace solutions, as well as business technology solutions for public and private sector organizations. Atos serves numerous industries with a considerable focus on healthcare and life sciences. The company was founded in 2000 and is headquartered in Bezons, France. In 2021, its workforce strength stood at around 110,000 globally.



Strengths

Powerful Atos Virtual Care Platform: Atos provides a complete set of functionalities across the entire patient journey. It starts with pre-visit services such as registration and authentication, covers visit-related services such as remote patient monitoring and electronic health record (EHR) updates and ends with post-visit services such as adherence management.

Comprehensive end-to-end solution for EHRs: The portfolio includes an EHR solution for medical practices and web-based healthcare networks that covers the entire process chain and includes the needed infrastructure and application management services. The solution includes components such as a network architecture, a secure database management system and a reliable patient portal. Notably, Atos is the primary integration partner for central state-driven EHRs in Germany.

Powerful solutions for different integration scenarios: Based on deep knowledge and broad experience on the infrastructure level and in IoT scenarios, Atos offers numerous solutions that enable the comprehensive integration of wearables, sensors and other devices. These solutions are also an important component for data capture for EHR solutions.

Broad cooperation with the National Health Service (NHS) in the U.K.: Atos maintains broad cooperation with the NHS in the U.K. for developing innovative and reusable patient-centric digital solutions.





Caution

While having a strong position in the European market with numerous clients, Atos needs to expand its client base in the U.S. and the rest of the world.



2021 ISG Provider Lens™ Leader

Atos offers a powerful portfolio of patient-centric solutions with a focus on patients' interactions with healthcare providers and on EHR functionalities.

CAPGEMINI



Overview

Capgemini is a provider of consulting, technology and outsourcing services in North America, France, the U.K., Ireland and rest of Europe, Asia-Pacific and Latin America. With its merger with Altran and increased focus on supporting digital transformation for its clients, Capgemini has demonstrated its focus on making its life sciences business a priority. Headquartered in Paris, France, Capgemini is present in more than 50 countries and employs approximately 290,000 people.



Clear focus on patient-centric solutions: Capgemini follows a strong patient-centric approach that integrates connected devices and user interfaces for mobile and web around a patient. Its portfolio includes multiple solutions for remote patient monitoring, for example, wearables to monitor vital signs and connected drugdelivery devices.

Framework for Software as a Medical Device (SaMD): Capgemini is certified according to ISO 13486 to offer SaMD and thereby provides a framework to support all relevant development phases. The main components are front-end development, back-end foundation and secure implementation of the front-end-to-back-end connectivity and systems integration.

Strong growth in scale and scope: In the recent years, Capgemini has shown significant growth in its capacity as well scope of functions covered. The acquisition and fast integration of Altran, an engineering-focused company, extended Capgemini's portfolio significantly. For example, the BEADS blockchain-based app platform enables transparency and traceability of transactions even if they span multiple organizations and teams.

Comprehensive integration scenarios for telehealth: Its portfolio includes solutions that generate the complete and secure back-end views for patients, doctors and pharmaceutical companies.



Caution

The company's numerous capabilities and solutions call for a better structured product and services catalog to help clients to better understand its rich portfolio.



2021 ISG Provider Lens™ Leader

With a rich portfolio of solutions for patient engagement, Capgemini is an excellent partner for life sciences companies in their digital transformation.



COGNIZANT



Overview

Cognizant, a professional services company, provides consulting, technology and outsourcing services in North America, Europe and globally. It has a strong position in traditional IT services and, in recent years, has been focusing on the digital transformation of its clients' core business processes. The company employs more than 318,000 people in 38 countries. Cognizant was founded in 1994 and is headquartered in Teaneck, New Jersey, U.S. It has a long history of addressing specific requirements of clients in the life sciences industry.



Strengths

Powerful IoT platform for patient-centric solutions: With OneCare, Cognizant offers a device-agnostic IoMT (Internet of Medical Things) platform that is compliant with all relevant regulations. The platform covers remote device management for medical-grade and consumer-grade devices (for example, wearables and smartphones) and remote patient monitoring services as a part of the larger virtual care transformation. By that, Cognizant is capable of providing patient-centric solutions for educating and guiding patients, monitoring health-related conditions, triggering alerts when necessary or offering guided medication support by monitoring adherence.

Sophisticated solutions for digital therapeutics: Cognizant's portfolio in the emerging area of digital therapeutics comprises various "digital companions", for example, an active health app or a so-called patient companion app. Cognizant can apply agile methods to the development of these software-as-a-medical-device (SaMD) solutions in a regulated environment.

Interaction with patients based on ServiceNow: In provisioning patient services, Cognizant is co-creating a solution for digital health support, based upon the ServiceNow platform.

Digital health solutions in cooperation with Philips: Cognizant with Philips and their Health Suite platform, deliver end-to-end digital health solutions that are compliant, secure and scalable across patient populations, therapeutic categories and geographies.





Caution

The development of standardized solution packages for patient–physician interaction for a specific medication should be given more consideration in the portfolio.



2021 ISG Provider Lens™ Leader

Cognizant scores with numerous powerful patient-centric solutions that support the trend of a digitally empowered patient.

HCL



Overview

HCL Technologies is a technology company that offers software, IT infrastructure and business process outsourcing (BPO) services worldwide. The company also offers hybrid clouds, digital workplace and cloud native services, together with service integration and management. It was founded in 1976 and has its headquarters in Noida, India. HCL has more than 187,600 employees across 50 countries and, in recent years, has expanded its footprint in the life sciences industry.



Strengths

A well-structured, comprehensive portfolio: HCL offers a complete spectrum of patient engagement solutions along the entire process chain — from consulting over design and implementation to operational support. Despite the inevitable complexity of this type of portfolio, HCL is successful in defining and providing a clear structure for the various components, which helps clients to understand the offerings.

Powerful solution for integrated patient care: With the Connected Care Suite, HCL provides a platform that drives the relationship between patients and physicians and ensures end-to-end patient engagement. It includes full connectivity with various devices and data management for chronic, acute and post-acute disease conditions. Essential functionalities included are telehealth, remote patient monitoring services such as vitals monitoring, home health services via device setup and IT help desk support, and integration with wearables by using IoT technology and device logistics.

Suitable methodology for patient-engagement solutions: In the design phase, solution development follows a persona-based approach, and is therefore suitable for patient-centric solutions. Furthermore, HCL has a strong focus on automation and infrastructure optimization that supports the development of cost-effective solutions.



Caution

HCL should increase the share of staff with consulting skills to optimize its position in strategy and business process consulting.

HCL should expand its client base outside of the U.S. to better accommodate the global character of the life sciences industry.



2021 ISG Provider Lens™ Leader

HCL is a highly competent provider in the digital services for patient engagement segment and can rely upon a comprehensive and well-structured portfolio.



HEXAWARE



Overview

Hexaware is a global IT consulting provider with strong focus on cloud-based solutions. It offers application transformation management solutions, including its Cloudify Everything solution, application programming interfaces (APIs) and integration, delivery, application managed services, business intelligence and analytics services. Hexaware has shown significant growth in recent years, with particular focus on the life sciences segment. The company was founded in 2010 and has its headquarters in Mumbai, India. Hexaware employs approximately 20,000 people across 30 countries.



Strengths

Experience in developing digital medicine systems: Hexaware has been one of the early innovators in combining digital capabilities with pharmaceutical products (digital therapeutics). The respective solutions increase the effectiveness of a drug regimen and serve as indicators of overall health, by using technology to ensure timely treatment, remotely monitor vital signs and provide key insights for physicians and caregivers.

Powerful standardized patient-centric solution based on Salesforce: The portfolio includes a solution suite for patient engagement, called CarrotCube, that was developed based on the Salesforce Health Cloud. It provides functionalities such as medication adherence tracking, symptoms monitoring and analytical functions such as patient dashboards for various aspects of patient health.

Focus on automation of solutions: The solutions provided by Hexaware entail a high level of automation that enables clients to reduce running costs significantly.

Strong operational support capabilities: The Hexaware Compassionate Cognitive Customer Care Center offers multilingual, omnichannel patient support services to supplement pharmaceutical firms' patient programs.



Caution

Hexaware should further strengthen its process consulting capabilities to reduce the share of pure technical implementation services in its portfolio.

The company needs to improve its presence outside the U.S. and the U.K.



2021 ISG Provider Lens™ Leader

With a clear focus on cloud-based solutions for digitizing patient engagement, Hexaware has achieved a leading position in this quadrant.



IQVIA



Overview

IQVIA is a global provider of advanced analytics, technology solutions and contract research services to the life sciences industry, primarily focused on clinical trials and associated laboratory and analytical services. Its Contract Sales & Medical Solutions segment provides healthcare provider and patient engagement services, and scientific strategy and medical affairs services. The company was founded in 1982 and has its headquarters in Durham, North Carolina, U.S. With approximately 77,000 employees, IQVIA has operations in more than 100 countries.



Powerful solution for interacting with patients in clinical studies: With the IQVIA Study Hub, the company offers a comprehensive platform for use during clinical studies. It includes functionalities such as telemedicine, patient eDiaries, questionnaires and a scheduling tool to confirm or reschedule study visits.

Patient engagement orchestration for improving brand commercialization: With the SaaS solution, Orchestrated Patient Engagement (OPE), IQVIA provides a patient-centric tool that facilitates interaction between life science companies and patients and supports the commercialization process.

High compliance level: The solutions provided by IQVIA comply with specific regulations. Furthermore, IQVIA uses a wide variety of privacy-enhancing technologies, which is of high importance when using cloud-based solutions to handle patient data.

Emphasis on data-oriented strategies: The company's portfolio offers various solutions that take a data-oriented approach toward life-science-specific functionalities. Most important in this context is the master data management (MDM) solution. It enables the definition and implementation of a central global data model with harmonized processes and worldwide visibility, and assures data quality with governance, risk and compliance regulations and contractual obligations.



Caution

The mobile enablement of patient engagement functionalities, by using wearables and sensor technology, should be strengthened in IQVIA's portfolio.



2021 ISG Provider Lens™ Leader

Based upon its strong domain expertise, IQVIA offers compelling solutions for patient engagement, primarily in the context of clinical studies.



PPD



Overview

PPD is a global CRO, providing clinical development and laboratory services as well as patient-centric services for pharmaceutical, biotechnology, medical device, academic and government organizations. The company also provides laboratory services, comprising bioanalytical, biomarker, vaccine science, good manufacturing practice and central laboratory services. PPD was founded in 1986 and has its headquarters in Wilmington, North Carolina, U.S. PPD has more than 30,000 employees in 46 countries.



Comprehensive suite of patient engagement solutions in the context of clinical studies: Its portfolio includes a variety of solutions that primarily support interactions with patients that participate in clinical studies. A significant part of the solutions are preconfigured and can be used without major additional implementation efforts. The solutions include functionalities such as eConsent (which captures digital signatures on consent forms), televisits and remote monitoring. For remote monitoring, in particular, PPD's electronic Clinical Outcome Assessment (eCOA) facilitates the collection of data directly from a patient, for example, by connecting to respective devices or to patient diaries. These functionalities exhibit a high degree of mobile enablement in PPD's solution portfolio.

Secure data extraction from hospital EMR systems: The company's portfolio includes a solution designed to extract data from hospital EMR systems, while meeting all patient privacy and data security requirements. This solution allows remote authorized researchers to access multiple hospital EMR systems, simultaneously, to identify eligible patients for research studies and extract relevant data.

Investments in direct-to-patient (DTP) supply chain models: PPD gives high consideration to efficient supply chain operation in the context of patient engagement. DTP shipments are an integral part of this strategy and are key differentiators, especially with the increasing number of decentralized clinical trials.





Caution

PPD should further strengthen the use of consumer-grade devices, particularly in post-marketing surveillance studies. The respective capabilities for developing SaMD solutions can become a key success factor in this context.



2021 ISG Provider Lens™ Leader

PPD qualifies as a leading provider in the digitization of patient engagement with a complete suite of functionally rich solutions.

TCS



Overview

Tata Consultancy Services (TCS) provides IT and IT-enabled services worldwide. The company is headquartered in Mumbai, India, has more than 528,700 employees and serves numerous industries. TCS has prioritized investments in its life sciences portfolio and has seen strong growth in recent years. Its portfolio covers the entire spectrum of digital transformation — from strategy, design and implementation to managed application services.



Strengths

Powerful platform offerings: The TCS portfolio includes sophisticated platform solutions covering various aspects of interactions with patients. The Health360 platform primarily provides patient-centric functionalities such as remote patient monitoring, telehealth and customized care programs. For example, the telehealth solution enables remote patient-physician interactions on any type of device. The TCS ADD Patient and Site Engagement platform is a highly configurable solution for clinical trials and medication adherence, comprising a rich library of digital engagement tools and multimedia content.

Numerous innovation labs: TCS runs innovation labs for a variety of development areas. For example, the labs for IoT and for medical electronics focus on integrated patient technologies such as smart inhalers, smart watches and smart medication through an IoT-enabled platform for downstream analytics. The strong development capabilities are complemented by a large ecosystem that includes providers of mobile devices, sensors and wearables that can be integrated into the Health360 platform.

Effective integration through cloud-based data management: The automated collection of patient-related data is combined with cloud-based data management that allows activities such as making a diagnosis based on data obtained through remote patient monitoring.



Caution

The portfolio should be complemented by standardized solution packages based on the powerful platform offerings, for example, integration of data resulting from interaction between physicians and patients into electronic health records (EHRs).

TCS' portfolio should give more consideration to the use of smartphones and consumer medical devices fpr patient engagement solutions.



2021 ISG Provider Lens™ Leader

TCS is a leading provider in the area of patient engagement and offers several powerful platforms for developing patient-centric solutions.



WIPRO



Overview

Wipro is a global IT, consulting and business process services company. It operates through three segments: IT Services, IT Products and India State Run Enterprise Services (ISRE). The company's portfolio of services includes strategy, design, implementation, operational support, infrastructure and platform operation as well as process consulting. Wipro was founded in 1945 and has its headquarters in Bengaluru, India. The company employs more than 200,000 people across 55 countries.



Strengths

Powerful Collaborative Care Platform (CCP): With CCP, Wipro provides a comprehensive system for effective collaborations between patients, nurses and physicians. Essential functionalities of this platform are patient recruitment, patient progress tracking, motivating patients through caregiver connections, and providing content and services to support patient adherence.

IoT-based solution for digital therapeutics: Wipro uses broad IoT capabilities for an integrated solution that helps to continuously monitor and capture high volumes of biometric data and health indicators from connected devices, wearables and health applications. This solution is a part of the clinical studies offering.

Automated collection of data for EHRs: The portfolio includes a technical solution for connecting various health, fitness, laboratory and medical devices, enabling connectivity with clinical systems in a hospital IT infrastructure. This supports the efficient creation and maintenance of EHRs in a secure and reliable manner.

Strong focus on automation: Wipro gives high priority to achieving high efficiency in all relevant solutions by utilizing automation, often in combination with AI and machine learning.



Caution

Wipro should continue to invest in staff with domain knowledge and consulting skills to further strengthen its position in strategy and process design consulting.



2021 ISG Provider Lens™ Leader

With its robust technological foundation and comprehensive domain expertise, Wipro is an excellent partner in the patient engagement solutions segment for life sciences clients.



RISING STAR: VERIZON



Overview

Verizon Communications offers communications, technology, information and entertainment products and services to consumers, businesses and government entities worldwide. Its Consumer segment provides postpaid and prepaid service plans, Internet access on notebook computers and tablets, wireless equipment and wireless Internet-enabled devices. It has strategic partnerships with Mastercard and Project Kuiper. The company was formerly known as Bell Atlantic, and changed its name to Verizon Communications in June 2000. It was incorporated in 1983 and is headquartered in New York City, U.S. Verizon has 132,200 employees serving in more than 150 countries.



Strengths

Strong capabilities for developing connected solutions: Verizon can rely upon an outstanding portfolio of technologies for connectivity and mobile devices. In the area of healthcare and life sciences, this is a strong foundation for developing solutions that are focused on the interactions among the various players such as patients, physicians and nurses. For example, in telehealth, Verizon offers solutions based on its own BlueJeans virtual meeting software, with functionalities such as virtual visits and a connected patient room. Another example is the provision of IoT-enabled remote monitoring devices that support "care anywhere" delivery models.

Investment focus on health solutions: Verizon invests significantly to develop capabilities in the healthcare and life science industries. Its roadmap includes various functionalities that enhance the technological capabilities around connectivity by content- and data-management-driven solution components, including the technology backbone, such as cloud databases.

Rich experience in security aspects: Verizon's security and compliance capabilities in the patient engagement segment benefit, to a large degree, from its rich experience in other, large business segments where security is a key success factor.



Caution

Verizon's portfolio currently has a strong focus on technologies that provide comprehensive connectivity. The company needs to swiftly develop some solutions with a significant range of content-related functions to gain ground in the life sciences industry



2021 ISG Provider Lens™ Rising Star

Based upon outstanding technology competence and the significant investments it has made in solutions for the life sciences industry, Verizon has the potential to become a leading provider in the digitization of patient engagement.





METHODOLOGY

The research study "ISG Provider Lens™ 2021 – Life Sciences Digital Services" analyzes the relevant software vendors/service providers in the Global market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

The study was divided into the following steps:



- 2. Use of questionnaire-based surveys of service providers/vendor across all trend topics
- 3. Interactive discussions with service providers/vendors on capabilities and use cases
- 4. Leverage ISG's internal databases & advisor knowledge & experience (wherever applicable)









- 5. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
- 6. Use of the following key evaluation criteria:
 - Strategy & vision
 - Innovation
 - Brand awareness and presence in the market
 - Sales and partner landscape
 - Breadth and depth of portfolio of services offered
 - Technology advancements

Authors and Editors



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Frances Grote joined the ISG IPL Life Sciences team in 2021. Prior to this, she led ISG's Life Sciences Digital Drug Development practice, which she helped to design and establish in 2016. Frances has over 25 years of experience in leading global biopharma R&D Strategic Sourcing organizations, prior to joining ISG. She is a recognized innovator in building supplier partnerships in drug development as well as in implementing digital technologies in biopharma R&D. She holds an MBA with a focus on Strategic Planning and has completed graduate training in negotiations.



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Rainer Suletzki brings more than 30 years of experience in various IT Management functions within a global German Life Science corporation. His main areas of expertise comprise IT application management, IT architecture, data modelling as well as IT sourcing strategy and execution. Currently he acts as independent consultant in various projects at ISG with focus upon application management for SAP, specifically for SAP HANA, and for Salesforce. This includes ISG Provider Lens Studies as well as various projects supporting companies in defining IT strategies and the corresponding sourcing decisions.

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Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, identifying inefficiencies in current processes, and advising the industry. Jan Erik has experience on all four sides of the sourcing and vendor governance lifecycle - as a client, an industry analyst, a service provider and an advisor. Now as a research director, Partner and Global Head - ISG Provider Lens™, he is very well positioned to assess and report on the state of the industry and make recommendations for both enterprises and service provider clients.

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