ISG Provider Lens™

Healthcare Digital Services

Healthcare Interoperability Services and Solutions

A research report comparing provider strengths, challenges and competitive differentiators

Customized report courtesy of:

NTT DATA

QUADRANT REPORT | DECEMBER 2022 | U.S.

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Digital services improve health outcomes and business results

The COVID-19 pandemic has caused 1.6 million deaths in the U.S. as of this writing. While death rates are falling, the physical and mental consequences for individual health outcomes will continue for decades. Long COVID-19 symptoms might last a lifetime, while much remains unknown about longer- term health effects. As was the rest of the society, the U.S. healthcare system was unprepared for the rapid change in demand for care, hospital beds, equipment and personal protective equipment (PPE). The industry is making changes to respond to the disease and to accommodate the increasing demand for healthcare services. Digital transformation and IT services are helping stakeholders in all parts of the healthcare ecosystem deal with the present and be future ready.

Among the service providers we communicated with, we repeatedly heard they are meeting clients where they are, rather than pushing specific agendas. Where they are, from a technology perspective, is reflected in recent ISG research that shows relatively low levels of adoption for many technologies (Figure 1).

Where the healthcare organizations are headed is reflected in the industry trends that emerge from this research:

- Increasing focus on health equity
- Industry convergence and interconnection
- Better stakeholder experiences
- IT modernization to reach desired outcomes
- Evolving economics of healthcare

U.S. healthcare industry is slowly **evolving** to **face complex challenges.**

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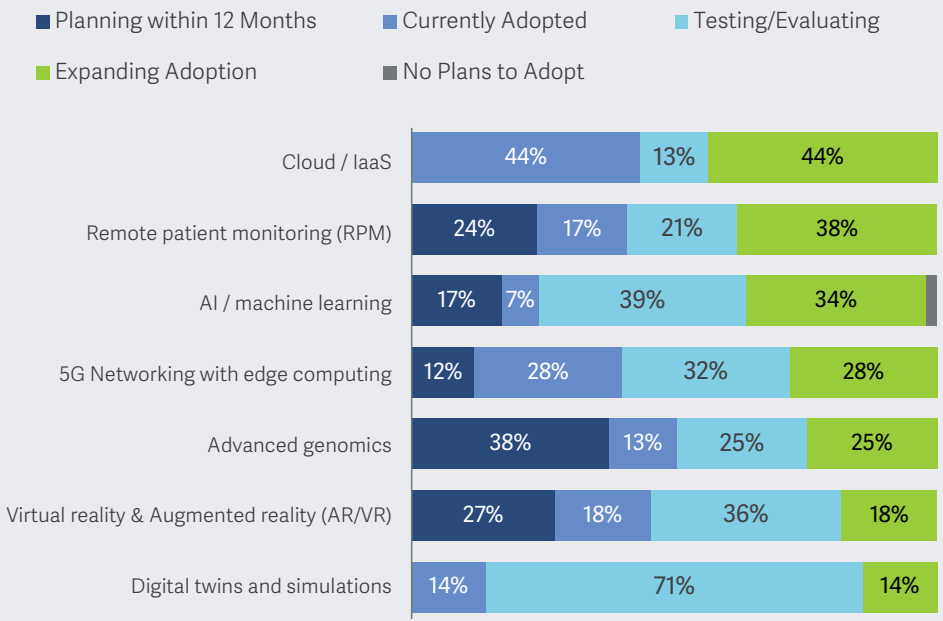
Increasing focus on health equity

People and institutions in the U.S. are driving the healthcare industry to focus on equity and recognition of the social determinants of health (SDOH). Traditional company roles are no longer relevant. Payers are moving beyond benefits administration to sharing the responsibility of overall health with their members. Favorable health outcomes start with behavior change. Providers see how health is affected by everything that people do. They are also challenged to proactively identify people who are the most vulnerable. Thus, they seek ways to engage and interact at homes, workplaces and in the broader community, leading to an increased focus on using electronic medical records (EMRs) and SDOH through descriptive and predictive analytics, machine learning and NLP. Public health promotion programs and self-care awareness are critical to improving individual and population health outcomes.

At the same time, there is a desire to treat individuals as unique. Awareness of behavioral and mental health is higher now, leading to a recognition of the need for proactive care. An increased focus on treating people as individuals drives uses of advanced data models and algorithms for early diagnosis and prevention. Integrated health uses a whole-patient approach while incorporating knowledge from SDOH.

Payers use a growing number of value-based care (VBC) agreements because Medicaid and Medicare programs provide incentives and rewards for positive health outcomes. Reluctant providers are slowly accepting both upside and downside risks. The transition from fee-for-service to VBC increases the focus on wellness, prevention, early detection and

Figure 1: Technology Adoption Status



Source: ISG Research 2022 Healthcare and Life Sciences Survey

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the management of chronic and acute diseases. VBC remains a small but growing portion of the healthcare business.

Industry convergence and interconnection

Payers and providers are crossing into each other's traditional businesses. The value proposition of health plans is eroding while providers consolidate to face threats from new entrants. Large healthcare players, such as Anthem, CVS and UnitedHealth Group, invest more in acquisitions and models such as "payviders." Some payers are diversifying by acquiring their hospitals, while providers are adopting insurance models. Consumers of healthcare services seek unified consumer experiences. Payers want to connect to patient EMRs, usually for use cases such as prior authorization and complex case management. Providers use APIs to exchange data with online portals and mobile apps that help them have a complete view of their patient health data.

The need to better connect with the healthcare ecosystem is leading to a focus on improving data management and governance; integrating payer and provider systems is one of the most dynamic aspects of the healthcare market today. Integration and cooperation between payers and providers are essential to improve disease prevention and to have a better focus on therapies that deliver better health outcomes.

To enable this convergence, along with compliance with government mandates, a seamless flow of clinical and non-clinical information must occur across the healthcare ecosystem. When health information systems are better integrated, payers can develop an enhanced understanding of their utilization rates and better demand for services.

Better stakeholder experiences

Healthcare in the U.S. continues to receive low customer satisfaction ratings, according to research from the American Customer Satisfaction Index. Healthcare consumers and employees seek:

- Improved assess to doctors and hospitals
- Better call center services
- More insurance plans with price transparency
- Easier claims submission
- Timelier claims processing

People want to be active participants in their healthcare and coordination. They expect a multi-touch, digitally enabled healthcare experience that demands the payer segment to aggressively move toward a technologically advanced service model. For example, people contacting member services expect their representatives to have access to all their information and historical data from past inquiries. They also expect online access or access via a mobile app.

To meet consumer expectations, there is an increase in the number of digital engagement initiatives enabling virtual care and personalization of care (Figure 2). A shifting population mix, along with unprecedented consumer acceptance and desire for digital engagement during the pandemic, boosted the demand for modern experiences in the healthcare sector. Changing care delivery is also driven by the entry of big technology and retail companies into the market. Legacy providers are changing their business models to compete better.

Another driver of experience change is the trend of care moving from hospital walls into ambulatory and home settings. Virtual

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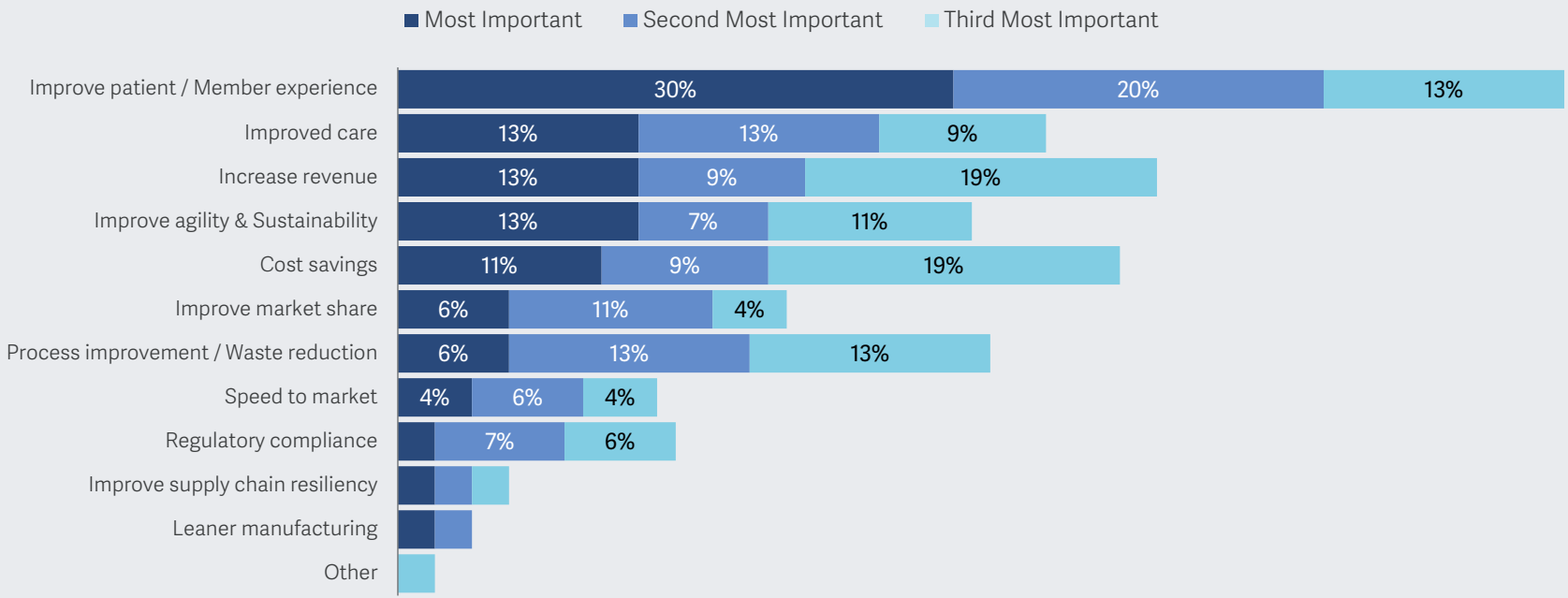
Figure 2: Top 3 Transformation Motivations



Source: ISG Research 2022 Healthcare and Life Sciences Survey

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care gained significant traction during the pandemic, and the momentum continues with telemedicine, remote patient monitoring, digital therapeutics and home care services. Payers and providers are revamping their online portals to become self-service digital front doors, implementing chatbots and mobile apps for improved engagement. Physicians and patients continue to embrace virtual solutions and resulting benefits in terms of access, cost and health outcomes.

IT modernization to reach desired outcomes

Digital transformation requirements are driving IT modernization spending in healthcare. Improving healthcare enterprises' legacy architecture or decreasing technical debt through modernization is helping enterprises address interoperability challenges, poor data quality and lower operational costs (Figure 3).

Meanwhile, part of modernizing involves using the cloud for data sharing and protection. In healthcare, there is a preference for hybrid or private clouds over the public cloud, especially because of the anticipated cost savings and ease of use associated with the hybrid or private cloud. As a result, there is increased demand for multicloud adoption and monitoring tools for management. There are differences within the industry in the adoption of and proficiency with cloud technology for managing healthcare data. Due to legacy investments, several firms in the healthcare sector have stayed digitally inactive. These old infrastructure systems may not have the scalability and flexibility needed to handle the data explosion occurring across client ecosystems, even though they appear to be tied to earlier investments.

AI and analytics speed up digital transformation, which results in better patient care and experiences. Automation improvements using AI, machine learning and RPA affect core process optimization as well as automatic approvals and related initiatives for prior authorization and claims processing. The adoption of advanced analytics is also spurring innovations in:

- Population health
- Revenue cycle management (RCM)
- Payment integrity
- Member and patient engagement
- Application of human genomic data

Furthermore, AI and analytics enable new mobile capabilities in healthcare, including consumer engagement via mobile devices such as wearables. However, these need proper data management foundations as well as clinical and operational business intelligence competencies to enable data-driven decision-making.

Another trend in the healthcare sector in the U.S. is the integration of AI and machine learning into legacy-rule-based workflows to ease administrative functions. Workflow automation helps ensure staff well-being, task quality and cost management efficiency and lessens challenges such as staffing shortages and an aging workforce. Precision medicine uses digitally enabled prescriptions supplemented with analytics and virtual platforms to improve diagnostics and prognostics.

Cybersecurity remains a top focus because of the nature and value of medical records and other personal data, including digital health data, interoperable data and customer engagement data. The WannaCry ransomware reportedly hit 40 percent of healthcare organizations. Furthermore, Internet of medical things (IoMT) wearable and implantable devices constantly feed sensitive patient data. The U.S. FDA recently directed stricter cybersecurity guidelines for device makers.

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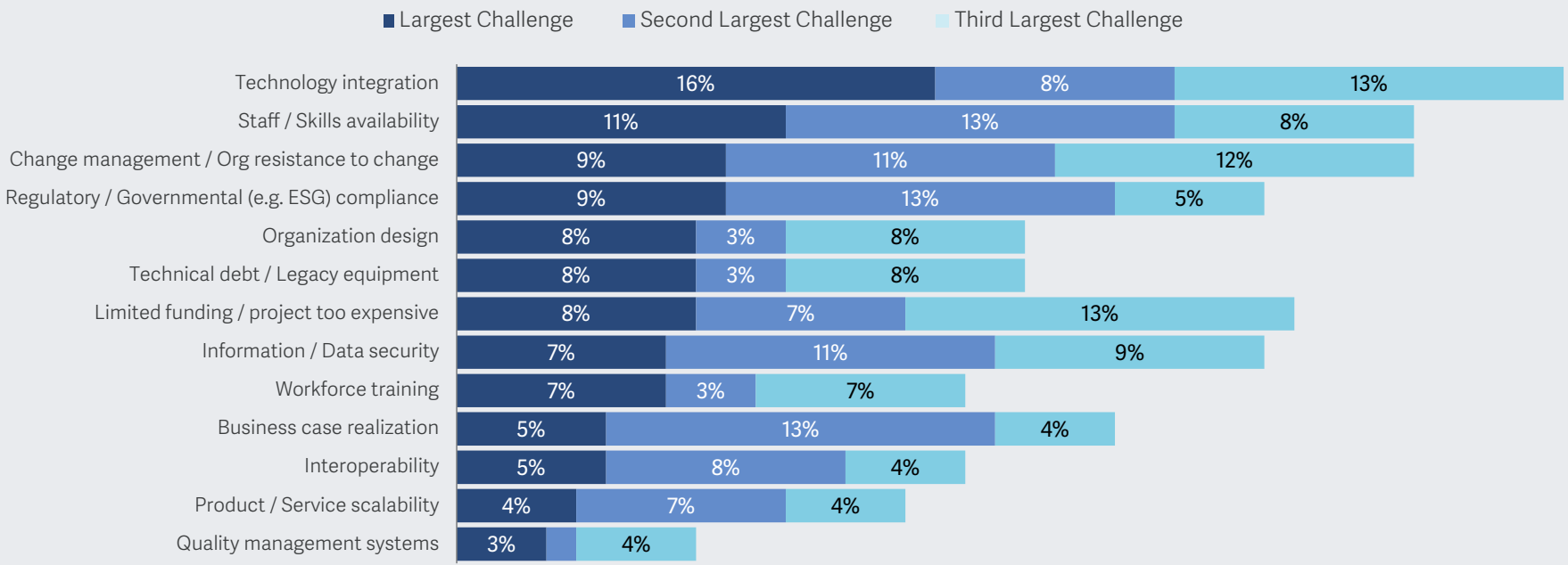
Figure 3: Top 3 Transformation Challenges



Source: ISG Research 2022 Healthcare and Life Sciences Survey

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A HIMMS survey shows that 59 percent of healthcare organizations increased their cybersecurity budgets this year, compared to last year.

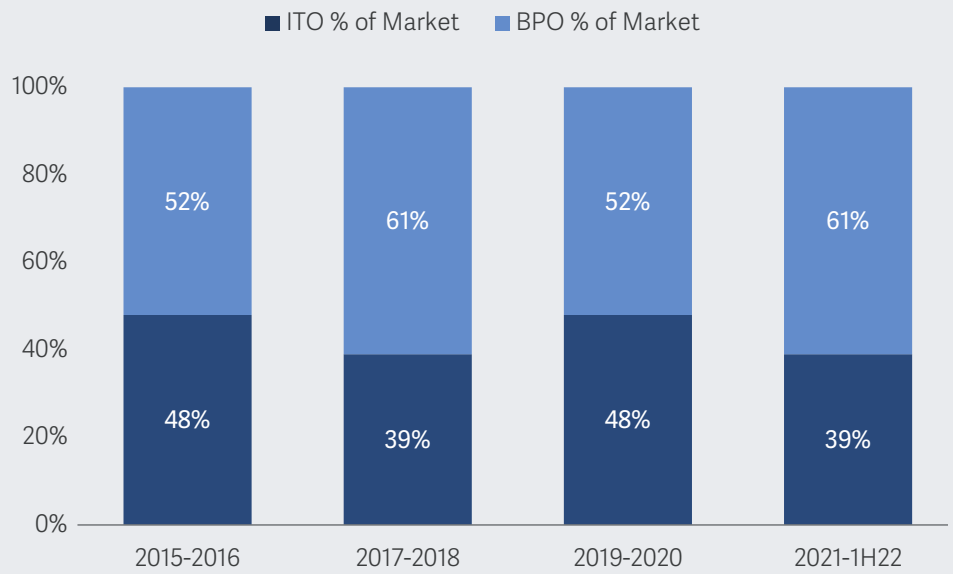
Evolving economics of healthcare

Demographic shifts and lifestyle changes, inflation and the pandemic continue to add cost pressure to healthcare ecosystems. Rising costs are leading to the need for cost optimization and workforce transformation. There is a growing focus on operational efficiencies, which encourages the adoption of cloud, process automation and application modernization initiatives, including mobility and remote workforce management.

The current adverse economic environment means modest to flat growth for commercial plans. Payers look to increase the member lifetime value, and government plans are expected to grow, including both Medicare Advantage, due to an aging U.S. population, and Medicaid, with factors such as a rise in unemployment. Moreover, healthcare organizations are giving higher priority to environmental, social and governance (ESG) goals and measures. To deal with these economic changes, the healthcare delivery model is seeking operational improvements enabled by digital transformation.

Meanwhile, government mandates and regulations are driving digital projects. In the U.S., the Office of the National Coordinator for Health Information Technology (ONC) and the Centers for Medicare & Medicaid Services (CMS) have created structured data standards and other mandates that electronic health records (EHRs) must adhere to. CMS and ONC guidelines require that patients have access to their healthcare data and provider directories via APIs. The No Surprises Act is meant to prevent

Figure 4: Healthcare Market Split: ITO vs. BPO



Source: ISG, 2022; Awards with > $5M Annual Contract Value

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surprise medical bills. There are also new regulations on interoperability address security; payer-to-payer data exchange; and admission, discharge and transfer event notifications.

Foreseeing the potential for a recession, healthcare leaders are aggressively pursuing effective cost optimization strategies, which reflects:

- A continual drive for better patient experiences and engagements
- Judicious cost increases
- Restructuring cost for effective allocation
- Applying agile methodologies
- Some strategic cost takeout measures
- Leveraging industry cloud platforms

This study evaluates the service providers working with U.S. healthcare payers and providers. Over time, as ISG Index data illustrates below, there has been a shift to a higher percentage of business process outsourcing (BPO) deals than IT outsourcing (ITO).

Healthcare expertise and tools are essential to digital services.

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Provider Positioning

Page 1 of 4

	Payer Digital Transformation Services	Provider Digital Transformation Services	Healthcare Interoperability Services and Solutions	Value-based Care Services and Solutions
Accenture	Leader	Leader	Not In	Leader
Atos	Product Challenger	Leader	Product Challenger	Contender
Capgemini	Product Challenger	Market Challenger	Leader	Market Challenger
CitiusTech	Product Challenger	Product Challenger	Leader	Rising Star ★
Coforge	Product Challenger	Not In	Product Challenger	Contender
Cognizant	Leader	Leader	Leader	Leader
Conduent	Product Challenger	Not In	Product Challenger	Not In
Deloitte	Rising Star ★	Product Challenger	Leader	Leader
emids	Product Challenger	Product Challenger	Not In	Not In
EXL	Leader	Product Challenger	Product Challenger	Not In

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Provider Positioning

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	Payer Digital Transformation Services	Provider Digital Transformation Services	Healthcare Interoperability Services and Solutions	Value-based Care Services and Solutions
Firstsource	Leader	Not In	Not In	Not In
GAVS	Not In	Product Challenger	Contender	Not In
Genpact	Product Challenger	Product Challenger	Market Challenger	Market Challenger
HARMAN	Not In	Contender	Product Challenger	Contender
HCLTech	Leader	Leader	Leader	Market Challenger
Hexaware	Product Challenger	Rising Star ★	Not In	Not In
Hitachi Vantara	Not In	Product Challenger	Not In	Not In
HTC Global	Contender	Contender	Contender	Market Challenger
IBM	Market Challenger	Leader	Not In	Not In
Infinite	Product Challenger	Product Challenger	Product Challenger	Product Challenger

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Provider Positioning

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	Payer Digital Transformation Services	Provider Digital Transformation Services	Healthcare Interoperability Services and Solutions	Value-based Care Services and Solutions
Infosys	Leader	Leader	Leader	Leader
LTIMindtree	Leader	Product Challenger	Rising Star ★	Leader
Mphasis	Product Challenger	Product Challenger	Product Challenger	Product Challenger
NTT DATA	Leader	Leader	Leader	Leader
Optum	Leader	Leader	Not In	Leader
Persistent Systems	Product Challenger	Product Challenger	Product Challenger	Product Challenger
PWC	Market Challenger	Market Challenger	Market Challenger	Not In
Quantiphi	Not In	Not In	Not In	Contender
Rackspace	Not In	Product Challenger	Not In	Not In
Sutherland	Contender	Contender	Not In	Not In

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Provider Positioning

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	Payer Digital Transformation Services	Provider Digital Transformation Services	Healthcare Interoperability Services and Solutions	Value-based Care Services and Solutions
TCS	Leader	Leader	Leader	Leader
Tech Mahindra	Product Challenger	Leader	Leader	Product Challenger
UST	Leader	Product Challenger	Product Challenger	Not In
Virtusa	Not In	Not In	Contender	Market Challenger
Wipro	Leader	Leader	Leader	Leader
WNS	Contender	Not In	Not In	Not In

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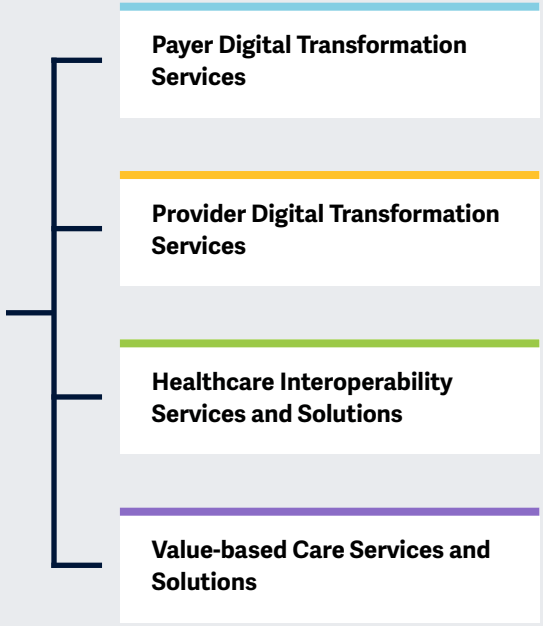
This study focuses on significant **Digital Services in Healthcare.**



Simplified Illustration Source: ISG 2022

Definition

The healthcare industry continues to be under pressure from customers, governments and other stakeholders to increase investments. The pandemic continues to affect industry practices. The public seeks better healthcare outcomes at lower costs, price transparency, appropriate data sharing and access to their own records. The U.S. healthcare industry must comply with new regulations and engage in mergers and acquisitions while adapting to the needs of an aging population. Furthermore, consumers expect advanced and convenient digital service delivery across the care continuum. Many companies and government agencies struggle to stay apace with the growing demand for their services, and in the private sector, they struggle to deal with the mounting competitive pressures.

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Scope of the Report

In this ISG Provider Lens™ quadrant study, ISG includes the following four quadrants: Payer Digital Transformation Services, Provider Digital Transformation Services, Healthcare Interoperability Services and Solutions, and Value-based Care Services and Solutions.

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

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Focus on regional market

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

Provider Classifications

The provider position reflects the suitability of 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 $20 million and $999 million with central headquarters in the respective country, usually privately owned.
- **Large Accounts:** Multinational companies with more than 5,000 employees or revenue above $1 billion, with activities worldwide and globally distributed decision-making structures.

The ISG Provider Lens™ quadrants are created using an evaluation matrix containing four segments (Leader, Product Challenger, Market Challenger and Contender), and the providers are positioned accordingly. Each ISG Provider Lens quadrant may include service providers that ISG believes have 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).

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Provider Classifications: Quadrant Key

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.

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.

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 products/services and a follow sensible market approach with a goal of becoming a Product or Market Challenger within 12 to 18 months.

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.

★ **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 means 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.

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Healthcare Interoperability Services and Solutions

Who Should Read This

This quadrant report is relevant to healthcare payer and provider enterprises in the U.S. for evaluating providers of healthcare interoperability services and solutions.

In this quadrant, ISG highlights the current market positioning of service providers that offer healthcare interoperability services and solutions to healthcare payers and providers in the U.S. and shows how each service provider addresses the key challenges faced in the country.

Interoperability in healthcare refers to secure access and exchange of data across the healthcare landscape so that it can be leveraged to optimize outcomes. It helps providers gather complete details about patients and enables payers to understand the needs of the market.

Secured access to data across the industry helps meet users' expectations, improve care and drive faster transitions.

The primary challenges healthcare organizations face while they make their systems interoperable include governmental mandates, lack of coordination between departments, reliance on legacy systems and diverse requirements. In response, leading service providers are enhancing their healthcare platform capabilities, strengthening their portfolios and creating holistic solutions to offer compatible interoperable solutions. At the same time, healthcare payers and providers seek trustworthy and committed partners that can address challenges and provide a roadmap for healthcare interoperability services and solutions.

Business Professionals should read this report to understand the relative positioning and capabilities of providers and thus effectively plan and select appropriate digital services and solutions. The report also shows how the technical and integration capabilities of a service provider are compared to the rest of the market.

Digital professionals should read this report to develop a better understanding of the current landscape of service providers' digital transformation offerings and understand how each of the providers have leveraged the latest technologies to meet healthcare providers' needs in the U.S market.

Technology professionals should read this report to understand how providers of healthcare digital transformation services fit in their digital transformation initiatives and how they are compared with one another.

Cybersecurity professionals should read this report to understand how service providers address the significant challenges of compliance and security, without compromising on patient privacy and experience.

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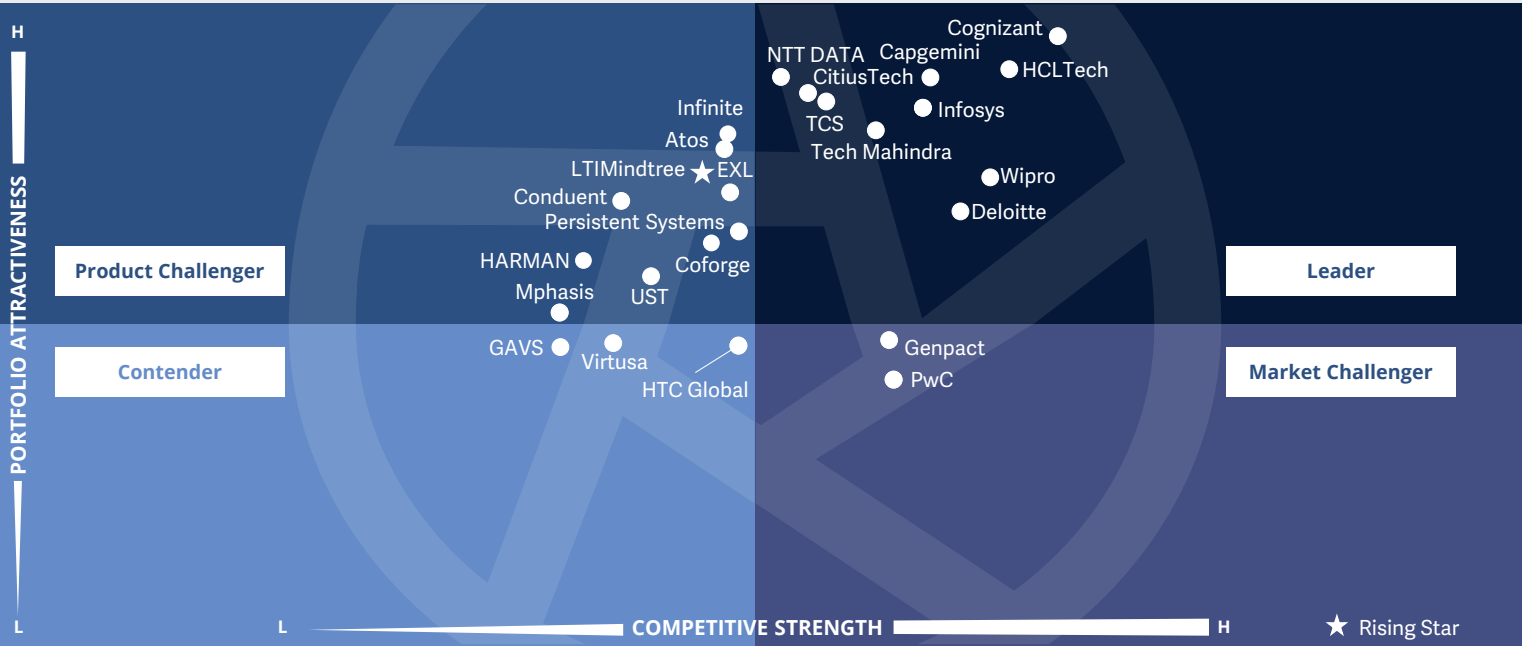
ISG Provider Lens™

Source: ISG RESEARCH

Healthcare Digital Services
Healthcare Interoperability Services and Solutions

U.S. 2022



This quadrant assesses providers of solutions and services that enable **improved data sharing** across the healthcare ecosystem. Adherence to Fast Healthcare Interoperability Resources (FHIR) standards and other services to help **meet government mandates** are critical.

Ron Exler

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Definition

The emphasis on interoperability and transparency in the sharing of health records among stakeholders has increased in the recent past. In the largest healthcare market in the world, the U.S. Office of the National Coordinator for Health Information Technology (ONC) and the Centers for Medicare and Medicaid Services (CMS) have created structured data standards and other mandates that electronic health records (EHRs) must adhere to. CMS and ONC guidelines require that patients have access to their healthcare data and provider directories via application programming interfaces (APIs). Other new regulations on interoperability address security; payer-to-payer data exchange; and admission, discharge and transfer event notifications. Access to the right information at the right time helps to deliver optimal care to patients or members. Recently, the focus has been on meeting interoperability mandates of governments, while at the same time giving patients easier access to their medical records and allowing timely and efficient sharing of information across the healthcare ecosystem.

This quadrant assesses providers of solutions and services that enable improved data sharing across the healthcare continuum. For the U.S., service providers should know and advise clients on the CMS and ONC guidelines that mandate patients' access to their healthcare data and healthcare provider directories via APIs. Providers should also adhere to other new rules requiring interoperability capabilities to address security and payer-to-payer data exchange, as well as admission, discharge and transfer event notifications.

Eligibility Criteria

1. Knowledge and experience with the **Fast Healthcare Interoperability Resources (FHIR)** standard developed for exchanging healthcare information
2. Knowledge and experience in tools to make it easier for healthcare systems and providers to **connect and share data across different sources**, such as Google Cloud Platform's Cloud Healthcare API
3. Ability to support consultation services for the **development of custom capabilities for interoperability** solutions
4. Ability to build, maintain and scale **seamless and secure personal experiences** across APIs
5. Capability in **designing user experiences** to ease the implementation and use of healthcare interoperability solutions

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Observations

Interoperability ties together the healthcare ecosystem in important and visible ways. In addition to government mandates to share data, the added potential value of appropriate and timely data management and analysis leads payers and providers toward enhanced services.

Leaders in this quadrant offer a range of interoperability services, starting with those needed to comply with Centers for Medicare & Medicaid Services (CMS) mandates. They offer solid teams of people with training and certifications in Fast Healthcare Interoperability Resources (FHIR), HL7 and other relevant standards. Interoperability centers of excellence also reflect commitment to training, partnerships and innovation. However, all the companies in this study meet the eligibility criteria and could be right for a healthcare company seeking service providers with specific strengths.

Compared to the 2021 study, the 2022 study's quadrant has several new entrants, including Deloitte, Genpact, HTC Global and PwC. The study reflects minor position movements among those included in both years' studies. Since many, if not most, provider-client relationships within this quadrant are long term, the shift is mainly due to the expansion of incumbent relationships and partly due to providers taking clients from one another.

From the 36 companies assessed for this study, 24 have qualified for this quadrant, with 10 being Leaders and one Rising Star.

Capgemini

Capgemini's longer-term interoperability strategy calls for the creation of a FHIR-enabled system of intelligence, seamless care coordination, and prior authorization via increased EHR integration and next-generation interoperable care management systems. The structure also includes the exchange of clinical data and the development of specialty services.

CitiusTech

CitiusTech offers a full gamut of integration services that healthcare organizations need, including FHIR consulting, interface development, app integration, device data integration and other professional services. Accelerators include a SMART-on-FIHR app framework and a library for improved consumer engagement.

cognizant

Cognizant offers solutions for each step of the interoperability journey. It adds value to interoperability, going beyond compliance to solutions that help a business. Some of the examples include member risk stratification, quality measures acceleration, data rich enrollment and personalized shopping experiences.

Deloitte

Deloitte uses advanced integrations with AI and cognitive platforms and smart APIs aligned to real-time, workflow-enabled solutions to help advance clinical care. It offers design and implementation delivery frameworks, along with independent and containerized platform accelerators, to standardize and automate interoperability. Deloitte goes beyond the technical interoperability needs to address strategic objectives.

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HCLTech

HCLTech's services range from strategy development to implementation and support. It helps clients adhere to CMS interoperability rules at scale. A partnership with Innovaccer gives HCLTech enhanced interoperability capabilities. Its center of excellence has certified HL7 consultants, FHIR experts, healthcare integration consultants and EDI experts.

Infosys

Infosys' services include strategy consulting, API development, testing and implementation, HL7/FHIR data repository implementation, analytics and app development, and interface managed services. The company uses several accelerators, such as predefined data maps, solution frameworks, reference architectures and clinical data analytical models.

NTT DATA

NTT DATA offers end-to-end healthcare interoperability consulting, architecture, design, implementation and support. It has experience implementing and supporting clinical integrations and interoperability solutions for all EMR systems. NTT DATA uses its technologies for a wide range of integration, interoperability and data services to payer and provider healthcare clients.

TCS TATA CONSULTANCY SERVICES

TCS takes an all-inclusive approach to healthcare interoperability, connecting various stakeholders with unified and frictionless experiences. It offers advisory and compliance services, data integration, quality engineering, and analytics, as well as service partnering and delivery. Its partnership with 1UP Health adds FHIR platform expertise.

Tech Mahindra

Tech Mahindra, with its U.S.-based subsidiary, HCI Group, offers experience in EHR implementations with all interfaces, along with custom adaptation and compliance with interoperability standards and mandates. This includes EHR integrations with Allscripts, Cerner and Epic. FHIR support includes a partnership with Firely, Innovaccer, mphrX, Onyx and WSO2.

wipro

Wipro has specialized healthcare interoperability knowledge and capabilities, including technology, market access, FHIR expertise and credibility. It also builds FHIR hubs for connecting medical devices to EMRs. FHIR APIs are available for the enrollment process, adjudicated claims, encounters, provider directory and pharmacy connections.

LTIMindtree

LTIMindtree (Rising Star) helps clients comply with CMS and the Office of the National Coordinator for Health Information Technology (ONC) mandates. The integration of EMR with current and emerging systems for patient engagement, telehealth and wellness is addressed through FHIR-based interoperability services. It also hosts an integration center of excellence with hundreds of certified consultants, dozens of frameworks and industry partner involvement.

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Leader

"NTT DATA has broad experience working with healthcare firms to meet interoperability mandates."

Ron Exler

NTT DATA

Overview

NTT DATA is headquartered in Tokyo and operates in more than 55 countries. It has over 140,000 employees across 208 global offices. In FY22, NTT DATA was combined with NTT Ltd., under the name NTT DATA Inc., with total revenue exceeding $30 billion. NTT DATA's interoperability improves processes and data sharing across the healthcare continuum, advancing the Quintuple Aim (health, experience, cost, staff well-being and equity).

Strengths

Interoperability experience: NTT DATA has decades of experience across various healthcare data formats, communication protocols and technology stacks. It has experience implementing and supporting clinical integrations and interoperability solutions for all systems (for example, EMR, billing, consumer, SDoH). The company offers end-to-end healthcare interoperability consulting, architecture, design, implementation and support. Thousands of specialists and consultants carry necessary certifications to deliver integrations.

Focus on healthcare data: NTT DATA offers Digital Accelerator (Nucleus for Healthcare) with the Digital Health Platform (DHP), Business Insight Engine (BIE) and MCM/Care Pro (payment integrity) to provide a wide range of integration, interoperability and data services to payer and provider healthcare clients.

Interoperability layer extends beyond traditional integration: An interoperability layer allows disparate applications to access a common set of patient data shared by multiple disparate applications. The layer extends to the visualization layer, providing a common set of tools for members, patients, clinicians and administrators.

Caution

U.S. healthcare clients and prospects should request and speak with current NTT DATA client references to best understand what fits their specific and future requirements, as well as the effects of the recent consolidation.

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Appendix

Methodology & Team

The ISG Provider Lens™ 2022 – Healthcare Digital Services analyzes the relevant software vendors/service providers in the U.S. market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

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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 November 2022, 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.

The study was divided into the following steps:

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

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Ron Exler is a principal analyst with the ISG Provider Lens (IPL) service, a part of ISG Research, leading IPL studies including Internet of Things (IoT) and Healthcare Digital Services. Ron has led product management at enterprise software companies, run enterprise research advisory services, and advised, built and deployed innovative technology inside large enterprises.

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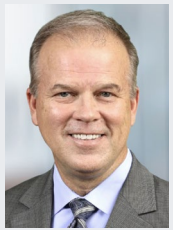

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Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, 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, principal analyst and global head of 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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ISG Provider Lens™

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

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