ISG Provider Lens™

Life Sciences Digital Services

A research report comparing provider and CRO strengths, challenges and competitive differentiators

BROCHURE | JANUARY 2025 | GLOBAL

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Introduction

The life sciences industry is witnessing a significant digital transformation driven by the urgent need to advance research and navigate regulatory complexities. Advanced technologies such as AI, ML and automation play a prominent role, yet issues with low-quality, outdated and incomplete data challenge their seamless integration into ongoing processes. The industry grapples with data centricity in R&D, emphasizing the importance of addressing data quality issues, particularly in master data management and governance. Despite progress, organizations struggle with data gaps, cross-business ownership and inconsistent quality. The imperative for reduced time-to-market prompts increased collaboration, but traditional tools result in data duplication and raise security concerns.

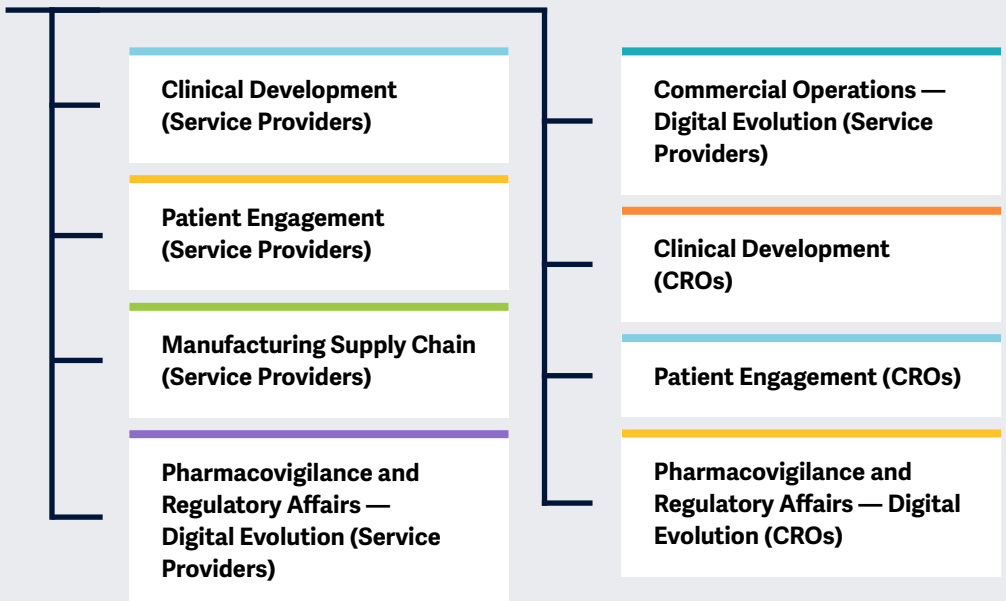
Industry leaders are navigating a landscape where innovation costs have surged exponentially. However, there is a need to adopt innovation at scale to enhance the efficiency of new business models that include AI-based solutions.

Key pillars supporting efficiency in life sciences innovation include accelerated mergers, acquisitions and divestitures; reliable supply chain innovation; exploration of non-traditional innovation sources; a patient-centric approach and creative strategies for monetizing non-traditional revenue sources. Digital transformation drives this shift, making enhanced connectivity, mobile engagement and advanced analytics essential in facilitating direct patient interactions.

Leading life sciences companies increasingly view outsourcing as a supplemental resource and strategic support, seeking expertise, bandwidth and technological guidance from external providers.

This study focuses on digital transformation **solutions and services for the life sciences industry.**

Simplified Illustration Source: ISG 2025



Definition

The ISG Provider Lens™ Life Sciences Digital Services study offers the following to business and IT decision-makers:

- Transparency on the strengths and weaknesses of relevant providers and CROs
- A differentiated positioning of providers and CROs by segments on their competitive strengths and portfolio attractiveness
- Focus on the global market

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 provider relationships and potential engagements.

Definition

This quadrant evaluates service providers' capabilities in supporting life science companies through all clinical phases. High costs and substantial failure rates in clinical trials have propelled the need for continuous innovation and services to enhance efficiency. Thus, integrating technology has become crucial to addressing these challenges spanning areas like patient recruitment, data collection, monitoring, analysis and regulatory compliance. Using innovations such as AI, big data analytics, mobile health applications and electronic health records also plays a key role in the comprehensive and strategic clinical development within digital transformation. Digital solutions aid in patient identification and safety monitoring, improve treatment efficacy and regulatory compliance, and build a robust foundation for maintaining quality standards and meeting reporting requirements.

Life science companies are embracing this digital transformation and recognizing the vital role of technology in driving efficient, innovative and successful drug development.

Eligibility Criteria

1. Proficiency in aiding the implementation and support of **clinical trial and/or clinical data and analytics technology solutions**
2. Knowledge of **clinical trial processes and requirements** with demonstrated experience in providing technology support
3. Expertise in using technology solutions in **clinical development**
4. Ability to offer alternatives to in-person interactions for researchers and participants, such as **mobile and internet-connected capabilities**
5. Established or emerging **partnerships with clinical development** technology and consulting firms
6. Capability to support, integrate and **modernize legacy systems**
7. Competencies in developing plans for **deploying appropriate technologies and procedures**
8. Ability to support, scale and update **technology tools and platforms**

Definition

This quadrant evaluates service providers specializing in life science customer services, including supporting processes and platforms. Digitalization transforms patient engagement by integrating advanced technologies and communication channels to enhance involvement throughout healthcare journeys. This approach employs digital tools like mobile apps, wearable devices, telehealth platforms and online portals to facilitate seamless communication between patients and healthcare providers, empowering patients with access to health information and personalized care plans.

Unlike in the past, when life science companies mainly collaborated with physicians, they now work closely with providers to optimize patient experiences across the development lifecycle, from initial engagement to outcomes. This digitally transformed patient engagement fosters a collaborative, patient-centric healthcare ecosystem, delivering improved outcomes, enhanced satisfaction and a more efficient system for delivering care.

Eligibility Criteria

1. Ability to build a **differentiated patient experience**
2. Capability to select, implement and **manage patient engagement services and platforms**
3. Ability to **develop digital services** that provide consumer-friendly interactions
4. In-depth knowledge of technologies, devices and their connectivity, including the ability to **develop suitable device strategies**
5. Strong competencies in device **security and data privacy measures**
6. **Ability to share data and analyses** in an integrated ecosystem for communication, education and marketing

Definition

This quadrant evaluates service providers that assist life sciences clients in enhancing their manufacturing supply chain operations. Digital transformation of these operations leverages advanced technologies and data-driven solutions to optimize manufacturing, distribution and supply chain management. It aims to improve efficiency, visibility and agility across the supply chain, from raw material procurement to production, quality control and distribution of pharmaceuticals and medical devices.

Central to this transformation is adopting digital technologies such as IoT, AI, blockchain and advanced analytics, which enhance real-time monitoring, traceability and collaboration. These advancements streamline operations, reduce lead times, minimize errors, ensure regulatory compliance and deliver safe, high-quality products to healthcare providers and patients. Ultimately, this digital transformation cultivates a more resilient, adaptive and responsive supply chain ecosystem.

Eligibility Criteria

1. **Capability to assess existing supply chains** and recommend strategy, process and technology changes to improve efficiencies, lower risks and reduce costs
2. Ability to transform manufacturing supply chain using digital methods and IoT, employing a variety **of automatic identification and data capture (AIDC) technologies**
3. Adept at providing **real-time visibility in logistics,** using sensors connected to systems that promptly provide status information (such as location or temperature) to the right people while changing routes as required and **predicting problems**
4. Ability to provide solutions for **complex supply chain structures,** including complex connectivity with **contract manufacturing** and advanced technologies to track and trace
5. Established or **emerging partnerships** with manufacturing supply chain specialists in life sciences and relevant technology providers
6. Expertise in **import/export compliance**
7. Ability to leverage **analytics** and **AI** to improve inventory relocation, forecasting accuracy and supply chain visibility; ensure adaptable planning to manage disruptions and enable seamless operations

Definition

This quadrant evaluates service providers that facilitate reporting using various processes and platforms and support patient safety monitoring while adhering to global and local regulatory requirements. Life science companies face increased scrutiny from regulatory bodies and consumer advocacy groups and, thus, must ensure patient safety and maintain quality and compliance standards across their products and operations. Although AI has effectively supported specific aspects of such activities, recent breakthroughs in NLP and ML are opening avenues for innovation and improved operational efficiency.

The industry's transformative shift toward digital medicine has led to the need for more sophisticated and robust reporting mechanisms. This requires adopting secure, efficient and compliant technologies to manage the surging data volumes in pharmacovigilance and regulatory affairs processes.

Eligibility Criteria

1. Create, manage, monitor and continuously improve upon a **differentiated service offering** in pharmacovigilance and/or regulatory affairs
2. Demonstrate expertise in global, **regional and local regulations,** patient safety reporting and compliance measures.
3. Showcase delineated **quality and compliance** processes and related employee training programs
4. **Select, implement and manage pharmacovigilance** or regulatory affairs services and platforms
5. Offer **internal service offerings** that can be integrated with adjacent areas and external platforms
6. Create **consumer-friendly digital interactions** and develop strategic approaches using in-depth knowledge of relevant technologies
7. Demonstrate expertise in **securing data, platforms and systems** while also facilitating integrated data sharing for communication, reporting and education within ecosystems

Definition

This quadrant evaluates service providers specializing in digitally transforming life science commercial operations, focusing on data analytics, customer engagement, supply chain optimization and personalized medicine. They leverage technologies such as AI, IoT and data-driven insights to streamline processes and enhance business value.

Life science companies in pharmaceuticals, healthcare and biotechnology are increasingly adopting AI, especially GenAI, to boost efficiency, drive innovation and identify market opportunities. These companies seek digital channels for direct-to-consumer engagement, online sales and efficient product distribution. The integration of sales and marketing analytics, pricing analysis, order management, CRM and ERP optimizes decision-making and refines marketing strategies while fostering strong customer relationships and providing a centralized platform for holistic business management.

Eligibility Criteria

1. Build and manage **a differentiated commercial operations environment**
2. Select, implement and manage **commercial operations services and platforms**
3. **Develop digital services** that provide market insights, opportunities and risks
4. Demonstrate in-depth knowledge of platforms, including the ability **to develop suitable commercial strategies**
5. Possess strong competencies in **securing commercial operations,** emphasizing data privacy measures
6. **Share data and analyses** in an integrated ecosystem for communication, education and marketing

Definition

This quadrant evaluates contract research organizations (CROs) that support life sciences in executing clinical trials across all phases. The complexities of clinical research, including high costs, need to comply with strict regulatory requirements and high failure rates, necessitate continuous innovation and efficient service delivery. Technology is crucial in addressing these challenges and enhancing patient recruitment, site management, data collection and regulatory compliance.

The adoption of AI, ML, big data analytics, decentralized trial platforms and electronic data capture (EDC) systems improves the strategic execution of trials. CROs mitigate operational and financial risks, optimize patient safety monitoring and ensure adherence to global standards. By leveraging digital solutions, they streamline patient identification, data integrity and regulatory submissions and drive efficiency and innovation in clinical research to help life science companies achieve their goals cost-effectively and on time.

Eligibility Criteria

1. Proven experience in managing trials across all phases (I-IV) with **success in diverse therapeutic areas**
2. Strong understanding of global regulations (such as Food and Drug Administration [FDA], European Medicines Agency [EMA] and International Council for Harmonisation - Good Clinical Practice [ICH-GCP]) and **expertise in submissions, audits and compliance**
3. Use of advanced tools such as EDC, clinical trial management systems (CTMS), AI and analytics to **enhance trial efficiency and data management**
4. Ability to manage global trials with strong local networks for **patient recruitment and regulatory navigation**
5. Expertise in **managing budgets, timelines, and resources** with dedicated project management teams
6. Robust **quality assurance frameworks and proactive risk mitigation** strategies to ensure patient safety and compliance

Definition

This quadrant evaluates CROs that enhance patient engagement in clinical trials. Low recruitment, retention and adherence require innovative strategies and tailored solutions. Technology is crucial, with tools such as mobile health apps, patient portals, wearable devices and data-driven insights fostering communication and participation.

CROs focusing on patient engagement design strategies that emphasize personalized outreach, education and support to improve recruitment efficiency and trial experiences. They leverage digital platforms, AI-driven insights and behavioral analytics for proactive engagement while ensuring compliance with privacy regulations. By embracing digital transformation, these CROs create inclusive, patient-centric trials that reduce participation barriers and enhance success rates, ensuring a sustainable approach to advancing clinical research in a patient-first landscape.

Eligibility Criteria

1. **Implement patient-focused strategies,** including personalized communication and support, to enhance recruitment, retention and adherence in clinical trials
2. Use advanced digital tools such as mobile health applications, wearable devices and AI-driven platforms to **facilitate effective patient engagement and streamline interactions** throughout the trial process
3. Develop strategies to recruit diverse patient populations and maintain high retention rates, **ensuring tailored support for participants** and overcoming any participation barriers
4. Leverage data analytics to gain actionable insights into patient behavior, allowing real-time adjustments to **optimize patient engagement and improve trial outcomes**
5. Adhere to privacy and data protection regulations (such as GDPR and HIPAA) for maintaining patient trust, **ensuring compliance and safeguarding trial integrity**
6. Adapt patient engagement strategies to meet diverse patient populations' cultural and regional needs, ensuring inclusivity and **maximizing participation in global trials**

Definition

This quadrant evaluates CROs supporting life science companies with pharmacovigilance and regulatory affairs across the drug development lifecycle. Ensuring drug safety and navigating adverse event reporting and regulatory frameworks require specialized expertise and robust processes. Technology plays a key role in streamlining these activities, with tools such as signal detection systems, automated reporting platforms and AI-driven analytics improving efficiency and accuracy.

CROs in this space leverage digital transformation and advanced analytics tools to provide comprehensive solutions that help monitor drug safety, manage risk and comply with global regulatory standards. Their services encompass adverse event monitoring, benefit-risk assessment, submission preparation and communication with regulatory authorities for compliance and transparency. They align safety and regulatory processes to efficiently manage post-marketing surveillance, risk mitigation and lifecycle reporting, thus supporting successful drug development and commercialization.

Eligibility Criteria

1. Take appropriate steps to **ensure patient safety across the drug lifecycle;** should have a strong track record in managing adverse event reporting, signal detection and benefit-risk assessments
2. Possess **in-depth knowledge of global regulatory frameworks** and demonstrate expertise in handling submissions, audits and regulatory authority communications
3. Leverage advanced tools such as automated safety databases, AI-driven analytics and signal detection systems to improve **efficiency and accuracy in pharmacovigilance and regulatory tasks**
4. Have a **global presence supported by localized expertise** to address region-specific pharmacovigilance and regulatory requirements effectively
5. **Implement robust risk identification and mitigation systems,** including effective post-marketing surveillance and risk management plans to ensure long-term drug safety
6. Manage timelines, produce high-quality documentation and deliver accurate reports to **ensure safety and regulatory standards compliance**

Quadrants by Region

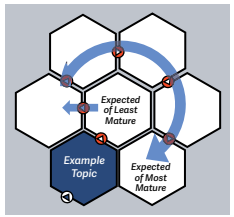
As a part of this ISG Provider Lens™ quadrant study, we are introducing the following eight quadrants on Life Sciences Digital Services 2025:

Quadrant	Global
Clinical Development (Service Providers)	✔
Patient Engagement (Service Providers)	✔
Manufacturing Supply Chain (Service Providers)	✔
Pharmacovigilance and Regulatory Affairs — Digital Evolution (Service Providers)	✔
Commercial Operations — Digital Evolution (Service Providers)	✔
Clinical Development (CROs)	✔
Patient Engagement (CROs)	✔
Pharmacovigilance and Regulatory Affairs — Digital Evolution (CROs)	✔

Key characteristics of the proprietary framework:

- Provides an overview of enterprise activities in the life sciences market and facilitates their connection to digital solutions
- Represents the entire value chain of supply and demand within the market
- Inner tiles represent themes of enterprise objectives
- Outer tiles represent initiatives
- Behind each outer tile is a specific set of capabilities with unique market-leading providers and solutions

Understanding the Mosaic



The research phase falls between February and April 2025, during which survey, evaluation, analysis and validation will occur. The results will be presented to the media in June 2025.

Milestones	Beginning	End
Survey Launch	29 January 2025	
Survey Phase	29 January 2025	7 March 2025
Sneak Previews	May 2025	June 2025
Press Release & Publication	June 2025	

Collecting client testimonials via the Star of Excellence™ Program requires early client referrals (no official reference needed) because CX scores have a direct influence on the provider's position in the IPL quadrant and the awards.

Please refer to the link to view/download the ISG Provider Lens™ 2025 research agenda.

Access to Online Portal

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

Buyers Guide

ISG Software Research, formerly "Ventana Research," offers market insights by evaluating technology providers and products through its Buyers Guides. The findings are drawn from the research-based analysis of product and customer experience categories, ranking and rating software providers and products to help facilitate informed decision-making and selection processes for technology.

In the course of the Life Sciences Digital Services IPL launch, we want to take advantage of the opportunity to draw your attention to related research and insights that ISG Research will publish in 2025. For more information, refer to the Buyers Guide research schedule.

Research Production Disclaimer:

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

ISG Star of Excellence™ – Call for nominations

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

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

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

Our vision for the Star of Excellence™ is to become acknowledged as the leading industry recognition for client service excellence and serve as the benchmark for measuring client sentiments.

To ensure your selected clients complete the feedback for your nominated engagement, please use the "Nominate (for Providers)" section on the Star of Excellence website.

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

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

ISG Star of Excellence

The ISG Provider Lens 2025 – Life Sciences Digital Services research study analyzes the relevant service providers and CROs in the global 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 January 2025, 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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Sonam
Khanna

Project Manager

ISG Provider Lens Advisors Involvement Program

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

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

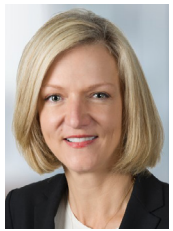
The consultant advisors:

- Help define and validate quadrants and questionnaires,
- Advise on service provider inclusion, participate in briefing calls,
- Give their perspectives on service provider ratings and review report drafts.

ISG Advisors to this study

Randy Tucker

Partner, Health Sciences



Jenn Stein

Partner, Health Sciences

Michael Fullwood

Partner, Health Sciences

Invited Companies

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

* Rated in previous iteration

4C Pharma Solutions
Accenture*
ACL Digital
Agilisium
All for One
Allscripts – Veradigm
Altasciences
Altimetrik
Apexon*
ArisGlobal
Arriello
Arvato
Asphalion
Atos
Beyondsoft*
Bio-Optronics
Biorasi
Birlasoft*
BJSS
Blue Prism
Bosch
Brillio*
Caidya
CANCOM
Capgemini*
Carelon
Catalyst Clinical Research
Celerion
CenExel
CGI
Charles River Laboratories*
Cigniti*
Cisco Systems
CitiusTech
Clario
Clinigen Group plc
CliniSys Group
Coforge
Cognizant*
Computacenter
Conduent*
CTI
Dedalus
Dell Technologies
Deloitte*
Deutsche Telekom
DXC Technology*
EMIDS
EMIS Health
EPAM
Eviden*
Evotec
Excelya
EXL
Firstsource
Flexential
Fortrea*
FPT
Frontage Laboratories
Fujitsu

Invited Companies

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* Rated in previous iteration

Genpact*
Google
GS Lab | GAVS
HARMAN*
HCLTech*
Hewlett Packard Enterprise (HPE)
Hexaware Technologies*
Hitachi Digital Services*
HTC Global
IBM
ICON plc*
Indegene*
Infinite Computer Solutions
Infogain
Infosys*
Innova Solutions
IQVIA*
ITC Infotech
Kainos
KCR
Kyndryl*
Labcorp Drug Development
LTIMindtree*
LTTS
Marlabs*
Mastek
MediWales
Medpace
Microsoft
Mphasis
Navitas Lifesciences
New Vision
NNIT
NTT DATA*
Orion Innovation*
Parexel International Corporation*
Persistent Systems*
Pharmalex
PPD (Pharmaceutical Product Development)*
ProClinical
PwC
Quantiphi
Rackspace
Rho
Siemens
Softserve
Softtek
SoftwareONE
Sopra Steria
Stefanini*
Sutherland
Syneos
Syneos Health*
Tata Elxsi
TCS*
Tech Mahindra*
TEKsystems
Tenthpin Management Consulting
TFS International
Thales

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* Rated in previous iteration

T-Systems
Unisys
UST
V2Soft
Veeva Systems
Veristat
Verizon
Virtusa*
Wipro*
WNS*
WuXi AppTec
Yash Technologies
Zensar Technologies*
Zentiva

ISG Provider Lens™

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

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

ISG Research™

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

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

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

ISG

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

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

For more information, visit isg-one.com.

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