ISG (Information Services Group) (Nasdaq:III) is a leading global technology research and advisory firm. A trusted business partner to more than 700 clients, including more than 70 of the top 100 enterprises in the world, 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 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 more than 1,300 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 www.isg-one.com.
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Internet of Things (IoT) services are defined as the conglomeration of functions such as consulting and implementation (planning, cost analysis and business case development), technology integration and execution (device, platform, analytics, application and security) and overall IoT ecosystem management (managed services). The interaction and exchange of a vast amount of data through fast and always-on network connectivity and the analysis of such data produces meaningful insights that support decision-making. Sensors collect the data and applications, software and platforms build on the data in a secure way to help make useful business cases across industries. Implementations across industries such as Manufacturing, Healthcare, Real Estate and Automotive have been able to drive huge cost savings, improved business decisions, operational efficiencies, and better process management. A connected ecosystem can help run a business in an organized and consistent manner, while ensuring return on investments (RoI).

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

- Transparency in the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Focus on different markets includes the U.S. and Germany

Our study serves as an important enabler of decision-making for positioning, key relationships, and go-to-market considerations. ISG advisors and enterprise clients also leverage information from these reports to evaluate current vendor relationships and potential new engagements.
Quadrant Research

As part of the ISG Provider Lens™ Quadrant Study, we are introducing the following six quadrants on IoT - Services and Platforms.

IoT – Consulting and Integration

Consulting and Integration is a conglomeration of functions like consulting and implementation (planning, cost analysis and development of business case), technology integration and execution (device, platform, analytics, applications and security). Based on the requirements of the connected framework or ecosystem of the clients, providers are enabling the right mix of technology and partners to achieve business outcomes. This quadrant also includes edge computing consulting & implementation support on distributed end devices as computing power shifts outside the central data center. Intelligence and analysis at and close to the edge has become important because of network latency and response requirements for new applications. Also, there is ongoing focus on IoT security to protect the connected devices and networks. The system outages and loss of control caused by malware (such as ransomware) and DDoS attacks result in significant data loss, and endpoint security and network security solutions can prevent such attacks.

Eligibility Criteria

- The service providers should be able to draw a roadmap, do a pilot deployment, lay out a security and consulting strategy and build PoCs with clients
- They should provide end to end support to clients from an integration and implementation perspective by involving themselves across the IoT value chain that includes devices, sensor integration, analytics, data and visualization, network, application to ERP and CRM integrations
- Market strategies, R&D spends and innovation plans for the current and coming years are also a part of the overall consultation approach of the providers
IoT – Managed Services

Management of the overall IoT ecosystem by service providers should enable scalable IoT solutions and managed connectivity solutions for ongoing IoT-enabled business operations. Comprehensive managed service solutions include security management, network management, device/equipment management, data management, platform and application management, and IoT analytics. The IoT analytics offerings include data management and intelligence to drive business values, predictive analytics, data visualization and IoT analytics platform maintenance. Enterprises that have already implemented IoT systems and solutions need extensive support in managing these systems and upgrading them.

Eligibility Criteria

- The service provider should offer support across the value chain, from device management, remote support, application management, platform, data, network management and cloud hosting to security and incident management
- Partnership capabilities to support managed services of different clients
- Inhouse capabilities and solutions to support IoT implementations
- Product roadmap, expansion plans and vertical focus are the few other parameters that need to be a part of their managed services portfolio

IoT Services – Manufacturing

The Manufacturing industry vertical has been one of the frontrunners in the adoption of connected technology to improve factory operations and the supply chain. The shop floors are increasingly using networked sensors and intelligent devices to collect data, store it wirelessly, and then use analytics and machine learning to reduce downtime of machines. The services range from asset tracking, preventive maintenance, monitoring of manufacturing process, diagnostics and real-time demand fulfilment to advanced analytics for predictive maintenance.

Eligibility Criteria

- The service providers offerings include hardware, consulting, integration, implementation and managed services, among others
- Service offerings in various areas like asset management, facility management, inventory management, risk management, security and shipping, SCM and logistics optimization
- Managed services around monitoring, optimization and diagnosis

IoT Services – Smart Buildings

Smart buildings take advantage of the interaction of sensors with the physical assets to plan, design, manage, secure and maintain the infrastructure and better serve occupants. Analyzing the monitoring data coming in from the connected ecosystem and managing the assets and operations forms the core processes of building management. Smart building management involves retrofitting and automating buildings via connected and digitized building management systems to digitally extend architecture and engineering.

Eligibility Criteria

- Various offerings to provide, integrate and manage the hardware, software, and people to design new and modify existing buildings to be connected for improved facilities or services
- Service portfolio includes monitoring building utilization, environmental factors, equipment status and access
- Managed services include installation, repair, and replacement of sensors and other IoT devices, asset management, energy management, facilities management, and environmental compliance for commercial, educational, medical, hospitality, manufacturing, and other such buildings and campuses
IoT Services – Connected Vehicles

The navigation, entertainment and communication systems in connected vehicles can communicate with each other digitally. Connected vehicles also digitally interact with the outside world including transportation infrastructure, networks and other devices. A connected vehicle offers improved safety, navigation, fleet management, parking assistance, traffic avoidance, infotainment and payments, and other features/advantages, with increasing use of voice and gesture commands.

Eligibility Criteria

- Various offerings, including integrated systems, consulting, implementation and integration services
- Managed services across the value chain
- Support offerings in the connected vehicle ecosystem
- Focus on technology and innovation and value-added service offerings

IoT Platforms

An IoT platform is the software layer of a technology architecture that connects all other layers in the IoT technology stack like hardware, network, data and cloud platform, application platform and software application. An IoT platform enables the deployment of applications that monitor, manage, and control connected devices. Key capabilities include remote data collection from connected devices, secure connectivity between devices, sensor management and integration with third-party systems. IoT platforms are the key interface for device communications (measure, control and regulate) and handle data management tasks (save, integrate, analyze and visualize device data), device management (security and functional SW updates on devices) as well as process management. Platforms are an integral part of IoT deployment, and we only consider the providers that use their own platform technology.

Eligibility Criteria

- Platform competencies across data management, analytics, application management etc.
- The usability of the platform in terms of verticals such as Manufacturing, Retail, and Connected Cars
- The cost and licensing models and solutions offered to clients
- Partnerships and investments with respect to provider platforms
- Sales modules and partnerships and customer developments
## Quadrants by Region

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>Global</th>
<th>US</th>
<th>Brazil</th>
<th>Nordics</th>
<th>UK</th>
<th>Germany</th>
<th>Europe</th>
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<tbody>
<tr>
<td>IoT - Consulting and Integration</td>
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<tr>
<td>IoT - Managed Services</td>
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<tr>
<td>IoT Services – Manufacturing</td>
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<tr>
<td>IoT Services – Smart Buildings</td>
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<td>IoT Services – Connected Vehicles</td>
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<td>IoT Platforms</td>
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**Note:** There are some regions which are highlighted as not having a quadrant report. The data for these regions is being collected for the Candidate Provider Qualification program.

### Research production disclaimer:

ISG collects data for the purposes of writing 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 work identified by the 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 to produce ISG Provider Lens reports.

These decisions will be made based on the level and completeness of 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.
The research phase is between **February 2020 and April 2020**. During this period, survey, evaluation, analysis and validation will take place. Selected results will be presented to the media in **July 2020**.

### Milestones

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<th>Milestones</th>
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<th>End</th>
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<tr>
<td>Launch</td>
<td>February 13, 2020</td>
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<td>Survey Phase</td>
<td>February 13, 2020</td>
<td>March 09, 2020</td>
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<tr>
<td>Sneak Preview</td>
<td>May 15, 2020</td>
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<tr>
<td>Press release</td>
<td>July 2020</td>
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Do you need any further information?
We will be happy to answer any questions you may have by sending an email to isglens@isg-one.com.
Partial list of companies invited for the survey

Are you in the list? Do you see your company as a relevant provider but missing from the list? Contact us to become an active participant in the research phase.

ABB
Accenture
Aeris Communications
Capgemini
Arrow
AT&T
Atos
AWS IoT
Ayla Networks
Birlasoft (KPIT)
Black & Veatch
Bosch
BT
C3.ai
Calix
CANCOM
Capgemini
CGI
Cisco
Clearscale
Cognizant
Cypress Semiconductor Corporation
Dell
Deloitte
Deutsche Telekom/TSI
DMI
DXC Technology
eInfochips
Emerson Automation Solutions
EPAM
EY
Flutura
Forcam
Freudenberg IT
GE
Gefasoft
Gemalto
Genpact
Google
Happiest Minds
Harman
HCL
HERE Technologies
Hexagon Manufacturing Intelligence
HPE
Huawei
IBM
Infosys
Inseego
Insight
Intel
ITC Infotech
Klika Tech
Logicalis
LTI
LTTS
Microsoft
Mindtree
Modjoul
Mphasis
nDimensional
Nemertis
Nokia - IoT
NTT Data
PTC
Qualcomm
Reply
RoviSys
Salesforce
Samsung
Siemens
Sierra Wireless
Solstice
Sprint
TCS
Tech Mahindra
Unisys
V2Soft
Verizon
Virtusa
VMware
Wipro
Xoriant
Zebra
Zensar