

IDC MarketScape: Worldwide Industrial Internet-of-Things Service Providers for Utilities 2022 Vendor Assessment

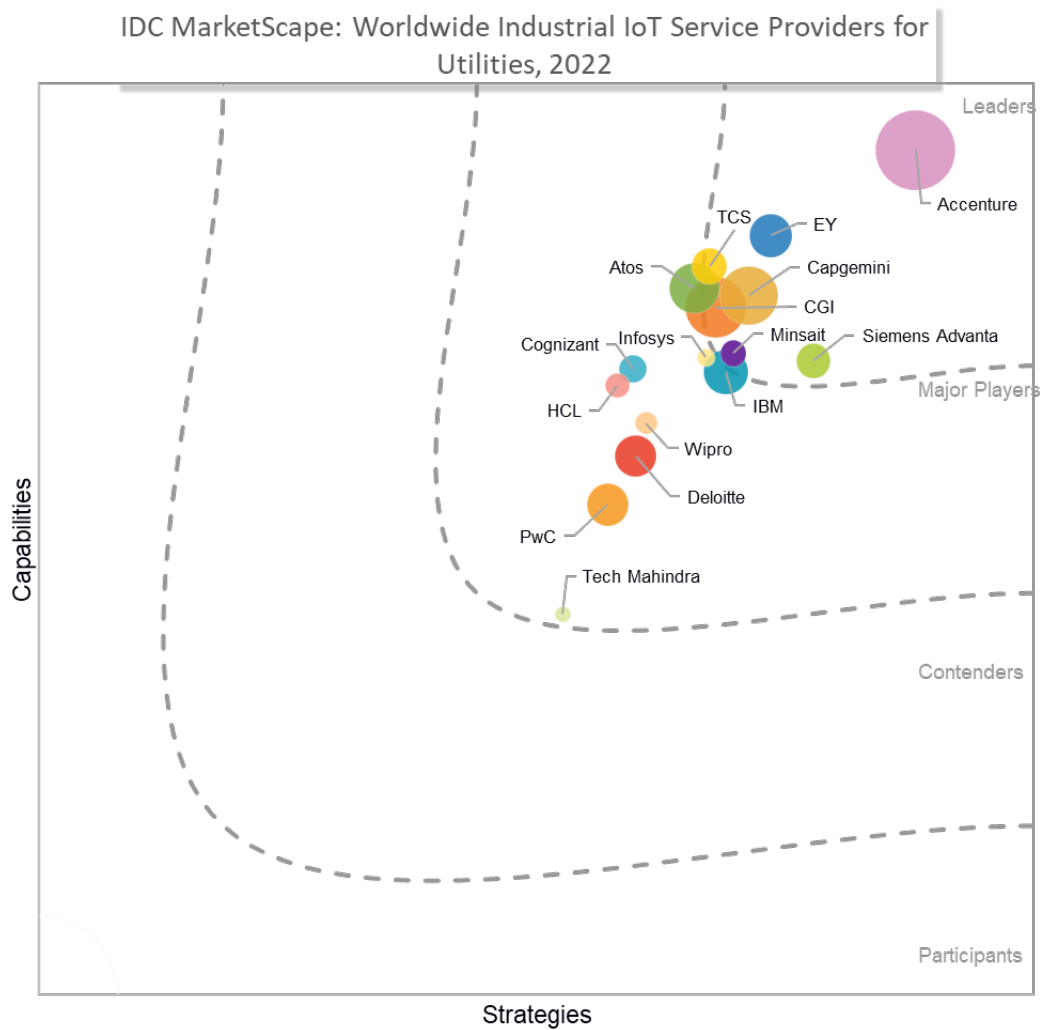
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THIS IDC EXCERPT FEATURES SIEMENS ADVANTA

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Industrial IoT Service Providers for Utilities Vendor Assessment



Source: IDC, 2022

IN THIS IDC EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Industrial Internet-of-Things Service Providers for Utilities 2022 Vendor Assessment (Doc #US47587121). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IDC OPINION

Industrial IoT (IIoT) had been a major area of innovation and investment for utilities for numerous years. Its applications include supporting edge operations for linear asset-intensive utilities, supporting remote operations for distributed energy resource operators, supporting energy suppliers up to customers' homes, and everything in between.

For this vendor assessment, IDC Energy Insights evaluated over 20 utilities-specific IIoT use cases such as predictive and prescriptive maintenance, remote asset monitoring, remote workforce/field service technicians monitoring, commercial & industrial building energy management, electric vehicle charging station management, and digital twins. Transformational benefits utilities are experiencing include detailed operational performance insights, improved asset uptime and reliability, reduced operational risks, reduced opex, and enhanced customer experience (CX).

This IDC MarketScape provides utility companies around the globe with insights into the current capabilities and future strategies of services providers in the IIoT domain. After evaluating services offerings for utility companies, IDC Energy Insights' key findings include:

- Most service providers working with utilities have business units or practices dedicated to IIoT that exist outside their industry-specific energy and utility business units (BUs) or practices. This is because for many, industrial IoT began in their R&D/innovation departments and had a horizontal application. More industry-specific applications were uncovered as work in the IIoT domain scaled, though IIoT remains a horizontal practice for most. This also favors cross-pollination of use cases and ideation from one industry sector to the next.
- For the most part, service providers catering to utilities around the world have invested and built their capabilities around industrial IoT. They have built domain-specific assessments and value discovery frameworks that enable the buildout of a strategic IIoT road map based on maturity. Additionally, there has been significant activities around building off-the-shelf IIoT solutions for utilities. Service providers are rather advanced regarding the IIoT use cases evaluated in this vendor assessment.
- The ecosystems of partnerships that exist in the IIoT domain are extensive and detailed. Service providers partner with various types of IoT technology providers to leverage their IP or collaborate and cocreate new IP. Other technology services that are provided in conjunction with IoT include edge, analytics, augmented/virtual reality (AR/VR), intelligent operations/robotics, artificial intelligence (AI) and machine learning (ML), and cybersecurity.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

For this IDC MarketScape, IDC Energy Insights includes only firms that have established a reputation working in the utilities industry at worldwide level. Numerous vendors were invited to

provide information to be evaluated in this study, but not all met the abovementioned general inclusion criterion. To be considered in this report, IDC Energy Insights analysts stipulated that vendors meet the following minimum criteria:

- A minimum market share is not required. Nevertheless, the vendor must have an established vertical practice working in the utilities industry that addresses the domains of the analysis.
- A minimum revenue threshold is not mandatory. Vendors should have above \$100 million of estimated total revenues in the worldwide utilities market for CY20.
- The vendor must offer utilities at least three of the following key services: business consulting, IT consulting, systems integration, application development, IT outsourcing, business process outsourcing (including horizontal and industry specific BPO services and industry-specific managed services), IT deployment support, and IT education and training.
- The vendor needs to offer a variety of services that are specific to support utility companies' industrial IoT programs, as defined in the scope of this report.
- The vendor needs to support utility business processes across utilities industries (electricity, gas, water), segments (production, networks, and supply), and regulatory models (regulated and liberalized markets). Vendors that have limited offerings that only cater to specific segments (e.g., generation) or business process (e.g., maintenance management) will be excluded.
- The vendor must be delivering services to utilities in at least two of the following regions: Asia/Pacific, Europe, North America, Latin America, and the Middle East and Africa.

ADVICE FOR TECHNOLOGY BUYERS

Industrial IoT offers numerous possibilities for utilities to improve their performances, safeguard their workforces, and better serve their customers. However, IIoT is a means to an end that should be considered alongside the larger realm of 3rd Platform and Innovation Accelerators to include edge, analytics, AR/VR, intelligent operations/robotics, AI and ML, blockchain, and cybersecurity.

Potential benefits of IIoT will largely be unique for each utility as their IT and technology landscapes will also dictate the outcome. Service providers have been key to unleash the benefits of IIoT, and should be looked at for end-to-end capabilities, from strategy and road map development all the way to IT education and training for utilities' internal workforces.

To maximize value from their industrial IoT efforts, IDC Energy Insights recommends that utilities:

- **Focus on business outcomes;** the technology will follow suit. Do not look at IoT in isolation or with one additional services component (e.g., edge services). Instead, explore the art of the possible based on your end-state aspiration, and consult with service providers to build a road map with various IoT-related technology services such as 5G, security, analytics, AI/ML, AR/VR, and autonomous systems. However, it is imperative to clearly identify goals in the context of the current IoT infrastructure.
- **Seek support with return on investment (ROI)** or other tools that provide understanding of the benefits of IIoT implementations. This is an area in which service providers, especially those with strong strategy consulting capabilities, excel in and can aid in securing new or extend existing budgets.
- **Identify areas of operations in which security** can never be comprised, and ensure the IoT service providers being evaluated have the experience and competency to consult and integrate secure operations and infrastructure.

- **Build a portfolio of preferred partners** that includes IT and business services companies that have proven to deliver value for like customers in the use cases being considered. Pay special attention to the strategies and capabilities being delivered by service providers in the domain of industrial IoT. Look at companies' histories of utility-specific M&A activities and strategic investments in companies and ventures dedicated to the IloT domain.
- **Engage in ecosystem innovation.** Collaborative-innovation and co-creation are crucial to successfully navigate and uncover new opportunities for IloT. With your service providers, establish an internal engagement platform that can bring together business stakeholders, technology partners, end users, and start-ups with a focus on idea conversion and incubation.
- **Tend to and nurture your internal resources.** The talent drain the utilities industry has been facing for the past decade is now exacerbated by the global skills and talent crunch affecting all sectors, including technology companies. The old practice of relying on IT and business service providers to cover skill gaps is no longer a guarantee, as many companies evaluated in this IDC MarketScape have also been negatively affected. Thus, it is increasingly important not only to vet partners on this front, but also to focus on internal workforces, especially regarding engineering talent. Skills identification and matching, learning, and training are critical to boost productivity and work quality, as well as to improve employee experience and ward off "The Great Resignation."

Finally, utilities should use this report to support their vendor selection evaluation process and:

- Acquire an independent first assessment of vendors' services capabilities in the domain of utilities' IloT
- Integrate the list of companies they might partner or request proposals from
- Leverage criteria used in this report to shape their own individual selection evaluation processes

VENDOR SUMMARY PROFILE

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and opportunities.

Siemens Advanta

Siemens Advanta is positioned in the Leaders category in this 2022 IDC MarketScape for Worldwide Industrial IoT Service Providers for Utilities.

Siemens Advanta (previously known as OMNETRIC) has rapidly become a key player serving the needs of utilities in the transmission and distribution segments across North America and Europe. The company focuses on providing systems integration and application development. Siemens Advanta stands out for its deep expertise around DER and is working around the globe with prominent utilities in the space as demand for integration of renewable and distributed energy sources soars.

Quick facts about the vendor:

- **Established vertical practice.** Siemens Advanta has over 10,000 professionals, with more than 1,000 utility industry experts also covering industrial IoT.
- **Geographic footprint.** Regarding industrial IoT, the majority of Siemens' work is done with European T&D companies and to a lesser extent with North American utilities.

- **Presence across the industry value chain.** Siemens Advanta focuses on the energy distribution segment, but it also has solutions for transmission infrastructures as well as cross-industry offerings.
- **Innovation assets.** The company's approach to innovation is based on supporting clients in embracing digitization and data to optimize services and rethinking business and operational models.
- **Partner ecosystem.** Siemens Advanta partners with large players including AWS, Google, Microsoft, MindSphere, SAP, RedHat, DXC, Atos, and Accenture. The company can also count on the vast networks of partners of its mother company. Additionally, the company also collaborates with TensorFlow, PySpark, Simcenter Flomaster, and Dakota regarding industrial IoT. Additionally, its mother company Siemens has established a new partnership with Nvidia targeting the industrial metaverse.

Distinctive capabilities:

- **Predictive maintenance and remote asset monitoring.** Siemens Advanta has developed several solutions to tackle predictive maintenance. Among these are Manhole & Vault Monitoring Program (MMP, which provides a cellular IoT-sensor-based solution to detect adverse conditions underneath manhole covers and vault environments.), Underground Cable Analytics Solution (provides an analytics-based solution to address the health status of underground distribution cables across the grid.), and High-Pressure Fluid Filled Pipe-Type Cable for High-Voltage Underground Transmission Analytics, Leak Detection, & Leak Localization (HPFF, which provides a combination of a deep-learning physics-based analytics solution and a IoT-sensor-based solution to both conduct rapid post-leak detection of low-volume flow rate leaks of dielectric oil in underground transmission infrastructures, in addition to predictive pre-leak detection and identification of leak location zones). Siemens Advanta also offers remote asset monitoring with Touchless Substation, a holistic remote condition-monitoring strategy and portfolio of solution components to assess current asset condition in terms of urgency of action/probability of failure/consequence of failure, as well as with Distribution Grid IoT Utility Pole Monitoring, an IoT-sensor-based solution to aid in responsive storm restoration and outage localization processes by identifying the degree of impacted distribution utility poles that are likely affected after an adverse event, as well as the status of the electromagnetic field detection to indicate energized or de-energized power lines after a major grid event.
- **Sensor-based asset diagnostics and maintenance.** IoT and wearable solutions: watch, jacket, helmet, location-based sensor devices for real-time alerts/notifications, indoor navigation and positioning, map-based guidance, vision-based video monitoring, environmental monitoring (gas leaks, fire hazard sensing and monitoring), and location-based geofences for worker localization and work area geofencing.

Strengths

- Siemens Advanta's capabilities and internal competencies in utilities' industrial IoT are extremely advanced and sophisticated. The company has concrete experience working with utilities in almost all of the 20 use cases evaluated in this vendor assessment, giving the company unique experience and deep levels of expertise and skills.
- Siemens Advanta has strongly focused on building its IP and solutions offering, covering asset monitoring and maintenance for energy distribution companies. It is also recognized for its solid implementation and advanced Microsoft Azure integration capabilities.
- The company is committed to significantly growing its footprint in Europe, as demonstrated by the recent acquisition of Spanish digital transformation company Innovation Strategies (July 2022) to support its operations in the Iberian Peninsula.

Challenges

- Siemens Advanta has demonstrated very rapid growth since its origins. However, as its work expands, customers have expressed concerns around the company's ability to meet demand in terms of having enough of the right resources in place at the right time.
- Likely due to its ability and preference to build capabilities in-house, Siemens Advanta's ecosystem of partners within industrial IoT is somewhat confined, with fewer start-ups being showcased. The company, while being solution agnostic, relies heavily on its mother company's suite of solutions.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is with customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis or strategies axis indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of individual vendor markers in this IDC MarketScape is based on IDC Energy Insights' best estimates of the market share based on vendor's global revenue, within the specific market segment being assessed (utilities IIoT).

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores – and ultimately vendor positions on the IDC MarketScape – on detailed surveys and interviews with vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

This IDC MarketScape assesses the capabilities and strategies of service vendors in enabling and supporting utilities' industrial Internet-of-Things (IIoT) programs and strategies. The study has a worldwide perspective.

For the purpose of this IDC MarketScape, IDC Energy Insights defines Industrial IIoT as a network of sensors (or devices) that constantly monitor the state of the machine, systems, or infrastructure they connect with. These devices monitor and collect data related to various attributes of the machine and enable businesses to get better insight into their operations. This IDC MarketScape focuses on IIoT services focusing on industrial processes provided in a B2B or B2B2C context only.

This report will specifically look at the following vendor service offerings to utilities: business services and IT services. Business services include:

- Business consulting. This service defines the vision, goals, business architecture, security, organizational model, talent, and other business process-related dimensions.
- Process services. Process services involve the transfer of management and execution of activities or single-business processes to an external service provider.
- BPO services

IT and OT services include IT and OT systems and network implementations, IT and OT data integration, application development and maintenance, IT and OT deploy and support, and education and training that are used to support industrial IoT, digital operations and IT/OT integration.

LEARN MORE

Related Research

- *IDC MarketScape: Worldwide Service Providers for Energy Transition and New Utilities Business Models 2022 Vendor Assessment* (IDC #US47586721, September 2022)
- *How do Customer Satisfaction and Net Promoter Scores for Utilities and Energy Suppliers Differ by Age Group?* (IDC #EUR149620922, September 2022)
- *How Does Customer Satisfaction and NPS for Utilities and Energy Suppliers Differ Around the World?* (IDC #EUR149616922, August 2022)
- *Utilities Asset Operations Quarterly Update: April-June 2022* (IDC #US48634722, July 2022)
- *EMEA Utilities Industry Quarterly Update: April-June 2022* (IDC #EUR148631722, July 2022)
- *Update on Electric Vehicles and eMobility Trends in Europe* (IDC #EUR149228822, June 2022)
- *What the Future Holds for Utilities: IDC Energy Insights' 2022 View* (IDC #EUR149141522, June 2022)
- *Utilities Charging the Net-Zero Economy: Highlights from the IDC European Utilities Summit 2022* (IDC #EUR146518621, June 2022)
- *Sector Coupling Charging the Net-Zero Economy: From Theory to Practice* (IDC #EUR149119522, May 2022)
- *IDC MarketScape: Worldwide Distributed Energy Resource Management Systems 2022 Vendor Assessment* (IDC #US47455621, April 2022)
- *European Utilities: Core Business Transformation Priorities and Execution Support – Trends for 2022, Part 2* (IDC #EUR14581562, March 2022)
- *European Utilities: Core Business Transformation Priorities and Execution Support – Trends for 2022, Part 1* (IDC #EUR148878422, February 2022)
- *Power Up! Igniting Business, Talent, and Ecosystems: Highlights from the 2021 IDC European Utilities Executive Summit* (IDC #EUR147229021, January 2022)
- *IDC FutureScape: Worldwide Utilities 2022 Predictions* (IDC #US4707562, October 2021)

Synopsis

This IDC MarketScape evaluates service providers by performing a qualitative and quantitative assessment of their capabilities and strategies regarding industrial IoT (IIoT) offerings for utilities across all value chain segments. With its worldwide perspective, it aims to support utilities in

choosing their partners in their journeys. It provides context for utilities evaluating vendors in this area, examines vendors' comparative success in the marketplace, and looks at how vendor offerings will evolve. This IDC MarketScape covers 16 vendors, and the evaluation is based on a comprehensive and rigorous framework that assesses vendors relative to the criteria and highlights the most influential factors for success in this market, both in the short and long term.

"Industrial IoT has long been a major area of innovation and investment for utilities as it offers numerous possibilities for utilities to improve operational performance, safeguard the workforce, and better serve customers. IIoT is a means to an end that – alongside other technologies – will play a critical role in supporting utilities' transformation to connected, self-healing, flexible, and resilient operations," said Gaia Gallotti, associate research director, IDC Energy Insights. "IDC Energy Insights evaluated over 20 utilities-specific use cases in IIoT. As adoption continues around the world, related benefits and ROI will become clearer and more pronounced, with business and IT service providers playing an essential role."

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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