

IDC MarketScape

# IDC MarketScape: Worldwide Industrial IoT Platforms and Applications in Energy 2021 Vendor Assessment

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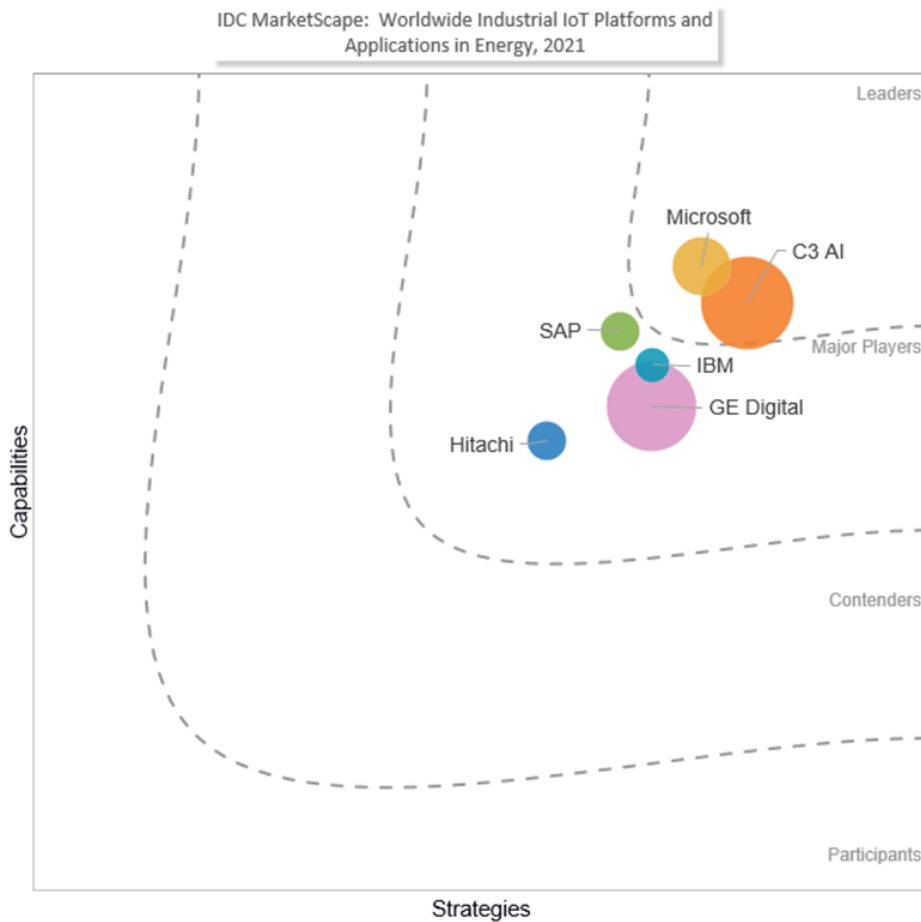
Reid Paquin

**IDC MARKETSCAPE FIGURE**

THIS IDC MARKETSCAPE EXCERPT FEATURES C3AI

**FIGURE 1**

## IDC MarketScape Worldwide Industrial IoT Platforms and Applications in Energy Vendor Assessment



Source: IDC, 2021

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

## IDC OPINION

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While being part of a broader group of industries that deploy Internet of Things (IoT), energy organizations are faced with challenges that are specific to their business. The transition toward decentralized and cleaner energy resources is moving forward at full pace across many regions. The cost of renewable energy has experienced a precipitous fall in the past 10 years, leading to a corresponding increase in their installed capacity. Electricity grids must tackle the resulting volatility while accommodating the uptake of electric vehicles (EVs). Oil and gas (O&G) companies are in the midst of increased market volatility with long-term declines in global petroleum demand; these unique market conditions are causing companies to rethink how they invest in technology.

This need to transform is driving energy organizations to rethink their technology strategy and that includes the incorporation of innovation accelerators like the Internet of Things. IoT provides energy organizations' access to more data than ever before, which can fuel a company's transformation efforts. IoT is pervasive in both oil and gas and utilities, with ongoing activity across the five primary strategic priorities:

- **Connected assets** – Using IoT and sensors to improve asset performance
- **Next-gen safety** – Using IoT and sensors to enhance personal health and safety of the workforce
- **Digital refining/grid** – Using IoT and sensors to improve operational performance
- **Digital upstream** – Using IoT and sensors to improve upstream exploration and extraction
- **Connected consumers** – Using IoT and sensors to enhance customer experience

The biggest opportunity for transformation comes from an asset standpoint. At the core of all energy companies are their assets. In utilities, assets lay the foundation for operations and, in most cases, rates and revenue. As the distribution and grid operations are upgraded and expanded, more and more assets have the capability to communicate with control and with each other. In oil and gas, companies spend significant amounts of money on maintaining and inspecting all of their assets to ensure maximum uptime and performance. This priority lays the foundation for transformation within energy and is where most organizations start.

## IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

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The vendor inclusion list for this IDC MarketScope is intended to include the most prominent industrial IoT (IIoT) platform and applications providers focused on the energy industry (this includes both oil and gas and utilities).

To qualify for this study, an organization had to provide:

- A commercially available – and generally available – software platform that can be used to build and deploy IoT applications and manage IoT devices
- Native support for industrial protocols within the platform offering, OPC at a minimum
- Edge application frameworks and runtimes

- Analytics tools including dashboards and advanced analytics (machine learning [ML]/artificial intelligence [AI])
- Security capabilities within the platform architecture
- Tools to create a "thing model" (this model abstracts raw sensor data into a hierarchical semantic model and presents it as a "thing" to an application)
- API access to IoT data
- Commercially available IoT applications

In addition, participating vendors had to:

- Have cleared at least \$15 million in IoT platform and applications software revenue for 2020
- Be able to support global IoT deployments (the Americas, EMEA, and APAC)
- Have at least 20% of their current IoT revenue stemming from the energy vertical
- Be able to provide a minimum of two customer references for the energy vertical (Reference customers must have had at least six months experience with the platform by January 2020.)

For this IDC MarketScape, vendors had to meet a strict series of criteria as laid out previously. Other vendors that may play in the industrial IoT platforms and applications software space for energy providers but that did not meet the criteria for inclusion in this document include:

- ABB
- AVEVA
- AWS
- Emerson
- Huawei
- Schneider Electric
- Uptake

## ADVICE FOR TECHNOLOGY BUYERS

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This IDC MarketScape assessed the capabilities of vendors in three areas: the offering and offering portfolio, the go to market, and the business itself. We suggest technology buyers pay particular attention to these areas, which are discussed in the sections that follow.

### Offering and Offering Portfolio

- **Platform functionality:** In this study, we evaluated the core IoT platform functionality from many aspects, including how applications can access data, device management, data management, analytics, security, app development, deployment options, DevOps support, and the user interface (UI). However, IoT platforms have varying requirements in terms of the depth of technical skill needed to work with them, so organizations should also internally assess their skill sets when choosing an IoT platform. For analytics-oriented IoT platforms, data science skills may also need to be assessed.
- **Integration:** We suggest technology buyers thoroughly vet possible suppliers for their integration capabilities with both the systems that generate the IoT data and the back-end systems they want to integrate this data with:

- **Front-end integration:** Although some customization may be unavoidable due to equipment that speaks proprietary protocol formats, vendors that are serious about this space are investing in capabilities to more directly communicate with various types of industrial equipment. In addition to the ability to access the data, such tools may also be able to get data from disparate sources into a common data model so that it can be more readily used by applications.
- **Back-end integration:** While there are some IoT use cases that can be driven off IoT data alone, we believe much of the value of IoT will be realized by the integration of that data with other key systems driving business processes.  
 IIoT platform and applications vendors should also be able to integrate with historians as these systems hold important historical and contextual information about equipment and processes.
- **IIoT data and analytics:** As the IoT market matures, and more data becomes available, the opportunity exists to analyze data using various tools and techniques. In addition, the cloud adds the ability to be able to gather data across geographically dispersed areas and do cross-site analysis. However, an effective analytics strategy does require a strong data management foundation that feeds clean, trustworthy, and properly contextualized data into the analytics model. The data and analytics strategy should also take data access into consideration. The more people that can access and work with the data, the more overall value an organization can derive from this valuable asset. Finally, organizations should assess what prebuilt models and algorithms the vendor offers for the energy industry that may be able to speed up their own deployment time.
- **Deployment options:** Over the past several years, it has become increasingly apparent that for most organizations, workloads will live in a hybrid cloud, multicloud world. IoT applications are no different and, in fact, can drive up the complexity by needing to run in offline edge scenarios. It is important to understand how well the vendor you are engaging with can support your unique application deployment needs. In addition to the proper infrastructure to run distributed applications, we would recommend asking if you can use the same programming model for applications that run on different endpoints and if those applications can be managed in a similar way to your other workloads.
- **Solution/application portfolio:** In recent years, there has been a clear shift by providers in the space to focus more on the outcomes achievable through IoT rather than IoT platforms themselves. This has led to the rise in importance of solution/application portfolio as it will enable energy organizations to quickly deliver results on the outcomes they prioritize. IDC expects this shift to continue to occur as IoT portfolios continue to mature:
  - While IoT can be utilized across five main energy strategic priorities, platform providers usually have certain use cases they are stronger in than others. IDC recommends that you examine a provider's current portfolio and future road map to ensure it aligns with your overall transformation goals. Select the vendor that can help you achieve results today but also set you up for future success.

## Go to Market

- **Ecosystem development:** The Internet of Things is highly ecosystem driven, and the development of industry ecosystems is a major trend as the world becomes more and more interconnected. IoT software (as covered in this assessment) is only one part of a full IoT solution, however. Therefore, it is important to understand how well the vendor you are working with has built up its partner ecosystem – specifically in the energy vertical. Organizations we speak with consistently bring this factor up in terms of their choice to work

with a certain vendor. A vendor with a strong ecosystem can help customers be successful in a number of ways: by doing pre-integrations with other software, hardware, and connectivity providers that help an organization get to market faster, by helping customers find services companies knowledgeable in their software to make the implementation smoother, by providing user groups that allow organizations to share best practices among themselves, by providing opportunities to monetize software built on the platform, and more.

- **Customer success:** Historically, many IoT projects failed to move past the proof-of-concept (POC) stage. There is no single reason why this happens, but one of the most prominent causes is that the organization failed to consider how the IoT project fed into the larger digital transformation (DX) goals of the company. We recommend evaluating IoT platform providers that not only have good technology but also take the time to understand – or help you work through – the key goals and KPIs for the project. This consultative approach is important not only for exploring the initial alignment between the vendor offering and your requirements but also for ensuring that the vendor's longer-term road map is well synchronized with your strategy.
- **Pricing:** IoT platforms and applications can be priced in a variety of ways. We asked about 4 different types of pricing and licensing terms and 10 different pricing models, and at least one vendor said yes to almost every category. The most common pricing and licensing term for IoT platforms and applications is the *subscription model*, and the next is on premises. A few vendors offer consumption-based pricing; none of the vendors that participated in this study offer outcome-based pricing for the platform. For pricing *models* for the platform, the most popular model is tiered pricing based on number of assets or devices. Other popular models are pricing based on named users or pricing based on data streams/tags. For pricing *models* for applications, the most popular model is pricing based on named users, and the second is tiered pricing based on number of assets or devices.

We recommend carefully assessing if a pricing model used for a POC will scale, taking into consideration your specific IoT use case and any business models you plan to put in place based on IoT data. It is also prudent to ask vendors if they offer any try-before-you-buy options.

## Business

- **Investment in IoT:** IoT is a complex phenomenon that spans across heterogeneous hardware, networks, and software – and therefore requires significant investment from vendors for successful market participation. This effort includes not only internal R&D into innovative technology but also externally focused ecosystem development, which beyond the typical partnerships and integrations may also include participation in consortia, test beds, and the like. While not every vendor can invest at the same dollar amount, IDC recommends ensuring that the platform vendor you partner with is seriously invested in industrial IoT for the long run.
- **Market conditions:** Although the energy sector is used to the highs and lows of economic and price cycles, this downturn seems unlike any other. Multiple references, particularly in O&G, stated that IoT agreements they made three or four years ago are no longer as viable from a value perspective as a result. This is leading to a growing desire for IoT providers to factor in market conditions when it comes to pricing so that projects can have balance flexibility and long-term success.
- **Industry knowledge:** There are unique industry challenges and business processes within energy, and it is critical to understand these differences to be successful in an IoT deployment. IDC recommends you work with a platform provider that recognizes the requirements for your industry. Included in this IDC MarketScape are providers with offerings for the energy sector, which includes:

- **Oil and gas** – Organizations that explore, extract, transport, refine, and deliver petroleum-based products
- **Utilities** – Organizations that deliver gas, water, or electricity to residential, commercial, and industrial customers (Utilities can include generation, extraction, transmission, and distribution of these services.)

## VENDOR SUMMARY PROFILES

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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 challenges.

### C3 AI

C3 AI is positioned in the Leaders category in this worldwide 2021 IDC MarketScape for IIoT platforms and applications in the energy sector.

#### *Company Overview*

C3 AI is an AI and IoT software provider based in Redwood City, California, and founded in 2009. C3 AI delivers a software suite for rapidly developing, deploying, and operating large-scale AI, predictive analytics, and IoT applications for any enterprise value chain in any industry, with a focus on industrial organizations. The C3 AI Suite works with existing data storage, sources, tools, and infrastructure investment while operating in a private, hybrid cloud, or multicloud environment. The C3 AI Suite supports configurable, prebuilt AI applications for predictive maintenance, fraud detection, sensor network health, supply chain optimization, energy management, and customer engagement use cases. C3 AI has a strategic relationship with Baker Hughes for developing applications and selling into the oil and gas industry and with ENGIE for utilities and energy management use cases.

#### *IoT Platform Offering*

- C3 AI's IoT platform is called the C3 AI Suite. Key aspects of the C3 AI Suite include:
  - C3 AI Integrated Development Studio (IDS) is a low-code/no-code environment for developing, deploying, and operating enterprise AI applications. C3 AI IDS provides data ingestion, data modeling, machine learning feature engineering and model life-cycle management, and a metadata-driven UI development tool.
  - C3 AI Type System is a model-driven architecture that uses conceptual models to represent all the attributes and processes related to a specific entity or domain as well as physical objects or data stores.
  - A suite of services include data integration, data management, time series, and AI and model management services.
  - There is a focus on enabling the production use of AI/machine learning.
  - Public, private, and hybrid cloud deployment options available, plus on-premises deployments on Kubernetes.
- C3 AI Ex Machina is a no-code solution that provides analysis-ready data to business analysts without data science training to aid in tasks such as building, configuring, and training AI models:
  - Ex Machina was launched in February 2017 as a C3 AI Application and as a standalone product in November 2020.

- C3 AI also offers prepackaged industry applications.

### Energy IoT Offering

- C3 AI offers solutions in both oil and gas and utilities, with energy being the largest customer segment by percentage of platform and application revenue.
- C3 AI offers IIoT applications across all energy DX strategic priorities, with connected assets and digital refining/grid use cases being its strongest area.
- C3 AI is partnering with energy customers to build DERMS and also looking at state institutions for additional partnering opportunities.
- C3 AI is focused toward customer requirements and fast deployment, configuring applications to suit the needs of each customer.

### Strengths

- **Cohesive platform for data:** References noted that C3 AI provided them a single location to put their data, model it, and apply analytics on a cohesive platform. In addition, references noted they were able to further maximize the value of their data on the platform through the use of analytics toolkits, data science, and BI tools.
- **Strong industry expertise:** Energy is the largest segment for C3 AI, and this history in the industry has built up its industry expertise. One customer reference indicated that this experience was a key part of its selection of C3 AI. The caliber of talent that C3 AI hires was also cited by references as a strength, with innovation being at the forefront of its thinking.
- **Artificial intelligence:** AI and machine learning are key technology enablers for C3 AI's IIoT offering. Data scientists can use multiple AI/ML model libraries in Python or R, and once configured, these models are immediately deployed into production without the need to re-implement them in a different production language or infrastructure. References noted C3 AI's experience and expertise in applying AI to industry use cases as a key differentiator.

### Challenges

- **User interface:** The UI of C3 AI was cited as an area needing improvement, with references saying it can meet basic needs but is not very feature rich. Even for users that were more advanced, they could still struggle with the UI at times. It was noted by references that C3 AI has recognized this concern and is investing to provide improvements and new frameworks.
- **Price/cost:** References consistently expressed cost concerns as an area that was a challenge for C3 AI. Developer licenses and ongoing support were cited as cost prohibitive and could make build the value proposition hard when trying to get the C-suite onboard. C3 AI will need to continue to focus on ways to reduce costs as energy organizations look to expand the platform into new use cases.
- **Integration:** For general enterprise and energy-specific systems (DERMS, AMI, etc.), C3 AI offers the ability to connect to these systems out of the box, but references indicated that this was not as easy to accomplish as anticipated. Data cleansing was cited as an area that could use improvements at times.

## APPENDIX

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### 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 to 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 the individual vendor markers in the IDC MarketScape represents the estimated market share of each individual vendor within the specific market segment being assessed.

## 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 the 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

IDC's IoT software platform market is a competitive software market representing portions of selected application development and deployment and system infrastructure software markets. There are two main segments of the market that IDC currently tracks, IoT application platforms and IoT connectivity management platforms. Vendors in this study primarily sit in the IoT application platform segment of the market. Further:

- **IoT application platforms** are software platforms that provide a bundled set of capabilities required to continuously connect, manage, and visualize IoT devices and data, often offered in a platform-as-a-service (PaaS) model.
- **Industrial IoT platforms** covered in this study represent a subsegment of the IoT application platform market that are specifically focused on providing applications with access to data gathered from industrial equipment and systems.
- An **IIoT application** is a code set designed to automate specific sets of business processes in an industry or a business function.

For a more detailed description of the IoT platform and analytics market, see *IDC's Worldwide IoT Platforms and Analytics Taxonomy, 2021* (IDC #US46462521, April 2021).

Included in this IDC MarketScape are providers with offerings for the energy sector, which includes:

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- **Utilities** – Organizations that deliver gas, water, or electricity to residential, commercial, and industrial customers (Utilities can include generation, extraction, transmission, and distribution of these services.)



## Strategies and Capabilities Criteria

Tables 1 and 2 provide key strategy and capability measures, respectively, for the success of selecting an industrial IoT platforms and applications vendor for the energy vertical.

**TABLE 1**

### Key Strategy Measures for Success: Worldwide Industrial IoT Platforms and Applications in Energy

| Strategy Criteria                   | Definitions   | Weight (%) |
|-------------------------------------|---|------------|
| Customer service                    | A vendor effectively retains customers and continues to innovate in customer retention and service areas, with the implication that the company will be able to achieve the level of service and support demanded by customers over the next three years.   | 12.0       |
| Delivery model                      | Plans are in place for support of offering delivery models that will match customers' shifting preferences for adoption/consumption in the next five years. In this market, that means planning to support multiple deployment models.  | 6.0        |
| Functionality and offering road map | Future plans for offering functionality are well aligned with current and future customer needs. Future plans for a broad range of functionalities were assessed including device connectivity, device management, security, data integration, data management, analytics, application development, edge functionality, DevOps, and UI customization. | 12.0       |
| Growth strategy                     | Management has a strong formula for growth for the company and one that aligns well with the market trends anticipated over the next three to five years.   | 12.0       |
| Innovation                          | The company's innovation model maximizes its potential to generate market value.  | 6.0        |
| Integration and ecosystem           | The vendor places importance on ecosystem alliances and has a strategy to support various IoT endpoints as well as plans to integrate with various enterprise back-end systems and third-party services. Here, road maps for integration were considered.   | 10.0       |
| Marketing                           | There is a robust game plan/strategy for all relevant facets of marketing (e.g., brand development, promotion, and demand generation) that matches where revenue is predicted to flow over the next five years.   | 9.0        |
| Portfolio strategy                  | The offering is well supported and enhanced by a portfolio of complementary offerings offered by the company or its ecosystem of partners. IDC considered the current portfolio and plans the vendor had in place to expand upon that in its road map.  | 12.0       |
| Pricing model                       | The supplier's pricing model strategy is directly aligned with customers' preferences for payment (e.g., license, service, per seat, and per transaction). We looked to understand any changes the vendor plans to make to the pricing strategy in the future.  | 8.0        |
| Sales/distribution strategy         | The sales/distribution strategy is aligned with the way customers want to buy the offering (e.g., online, offline, direct, and indirect). A channel program strategy was also taken into consideration. IDC considered any plans the vendor has in place to enhance its existing sales/distribution strategy.   | 9.0        |

**TABLE 1****Key Strategy Measures for Success: Worldwide Industrial IoT Platforms and Applications in Energy**

| Strategy Criteria | Definitions  | Weight (%) |
|-------------------|--|------------|
| Services strategy | IoT platform implementations generally require some level of services during the life cycle of the project. The vendor has a comprehensive strategy in place to fulfill these needs — on its own or via partnership. | 4.0        |
| Total             |  | 100.0      |

Source: IDC, 2021

**TABLE 2****Key Capability Measures for Success: Worldwide Industrial IoT Platforms and Applications in Energy**

| Capability Criteria                      | Definition   | Weight (%) |
|--|--|------------|
| Portfolio benefits                       | The offering is well supported and enhanced by a portfolio of complementary offerings offered by the company or its ecosystem of partners.   | 12.0       |
| Customer service delivery                | According to customer feedback, the company's service organization is executing well. Customer feedback was the primary scoring mechanism used here.   | 7.0        |
| Delivery model options                   | Delivery model options, such as public/private cloud, on-premises, and multicloud, were assessed.  | 6.0        |
| Financial/funding management             | IDC assessed the vendor's current financial standing and how well the vendor is positioned to grow the IoT business based on these criteria.   | 12.0       |
| Go-to-market capabilities                | This capability is achievable by the enablement of energy partners and marketing message.  | 9.0        |
| Growth strategy execution                | Management is executing well on its formula for growth for the company (e.g., by acquisition and organic). IDC assessed revenue estimates, customer growth, device growth, and other factors.                                    | 6.0        |
| IIoT analytics                           | A broad range of IIoT analytics functionality was assessed as part of the vendor's offering.   | 3.0        |
| IIoT platform functionality and offering | A broad range of functionality was assessed including device connectivity, device management, security, data integration, data management, analytics, application development, edge functionality, DevOps, and UI customization. | 6.0        |

**TABLE 2****Key Capability Measures for Success: Worldwide Industrial IoT Platforms and Applications in Energy**

| Capability Criteria                  | Definition  | Weight (%) |
|--------------------------------------|---|------------|
| Innovation/R&D pace and productivity | Reference and analyst evaluation of innovation/R&D is based on customer and prospect discussions and industry knowledge.  | 6.0        |
| Integration                          | Front-end and back-end integration were assessed. Front-end integration refers to the ability to connect to and support various IoT endpoint devices. Back-end integration refers to the ability to integrate IoT data with enterprise or third-party systems and services.   | 10.0       |
| Pricing/contracting                  | There are many IIoT platform pricing models. They can be based on data exchanged with the platform, CPUs, devices/sensors/assets, or users — or some combination thereof. There is no one-size-fits-all model because different pricing models fit different business use cases. Customer feedback was the primary scoring mechanism used here. | 7.0        |
| Sales/distribution capabilities      | The current sales/distribution structure is aligned with the way customers, especially those in high-growth market segments, want to buy (e.g., online, offline, direct, and indirect). Channel programs are in place to enhance growth.  | 9.0        |
| Range of services                    | IoT projects are often part of a larger digital transformation. Customers often need help at various stages of the project — from the initial consulting on project goals to technology implementation to managed services. IDC assessed how well the vendor's services portfolio complements the vendor's IoT platform strategy.               | 4.0        |
| Customer satisfaction                | Customer satisfaction is based on the ease of use of a vendor's product and reference ratings on configurability and support.   | 3.0        |
| Total                                |   | 100.0      |

Source: IDC, 2021

**LEARN MORE****Related Research**

- *Industrial Internet of Things in Oil and Gas Industry* (IDC #AP43671919, April 2021)
- *IDC's Worldwide IoT Platform and Analytics Taxonomy, 2020* (IDC #US46462521, April 2021)
- *Dissecting the Electric Reliability Council of Texas' Power Outage Debacle and Lessons Learned* (IDC #US47574221, March 2021)
- *Top 5 Trends for IoT Platform and Analytics in 2021* (IDC #US46462221, March 2021)
- *IDC Market Glance: IoT Platforms and Analytics, 1Q21* (IDC #US46462021, February 2021)

- *IDC MarketScape: Worldwide Utilities Asset Performance Management 2020-2021 Vendor Assessment* (IDC #US46211820, December 2020)
- *IDC MarketScape: Worldwide Oil and Gas Asset Performance Management 2020-2021 Vendor Assessment* (IDC #EUR147032820, December 2020)
- *Worldwide Internet of Things Software Platform Forecast, 2020-2024* (IDC #US43880319, September 2019)

## Synopsis

This IDC study uses the IDC MarketScape model to provide an assessment of vendors participating in the industrial Internet of Things (IoT) platforms and applications market. This study specifically analyzed these offerings from an energy industry perspective.

"The energy sector is being asked to become more responsive to customer and market demands. The advantage Internet of Things provides to the industry is improving business productivity, reducing costs, and getting closer to customers, which is a game changer as it creates new competitive advantages," says Reid Paquin, research director, IDC Manufacturing IT Priorities and Strategies (ITP&S).

"By providing industrial companies with a common way to access, manage, and visualize IoT data, as well as build and deploy IoT applications, industrial IoT platforms play a key role in supporting the goals of organizations in the energy vertical today," says Stacy Crook, research director, IoT, IDC. "As the market has matured, however, energy companies can now take advantage of prepackaged IoT applications that can help them realize value from their IoT data faster."

## 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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