

IDC MarketScape

IDC MarketScape: Worldwide Consulting and Digital Services Providers for the Downstream Oil and Gas Industry 2024 Vendor Assessment

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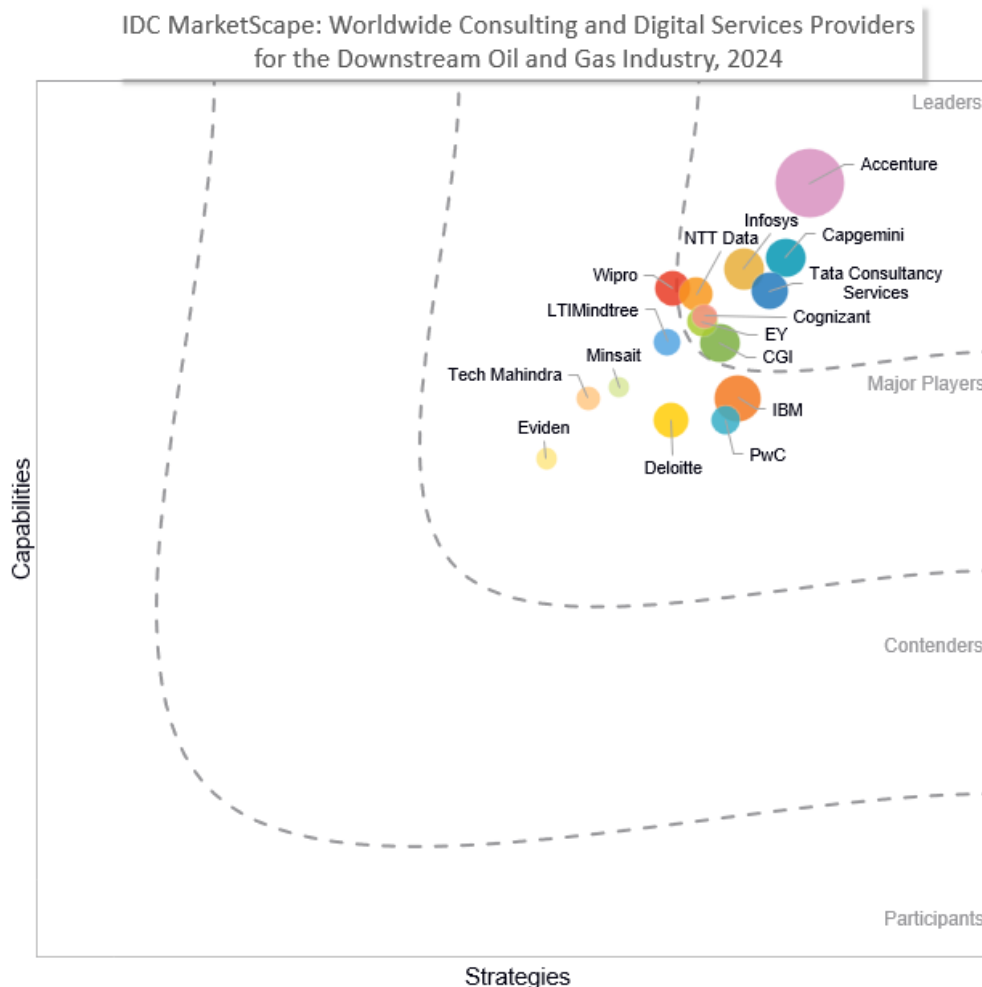
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THIS MARKETSCOPE EXCERPT FEATURES NTT DATA

IDC MARKETSCOPE FIGURE

FIGURE 1

IDC MarketScape: Worldwide Consulting and Digital Services Providers for the Downstream Oil and Gas Industry 2024 Vendor Assessment



Source: IDC, 2024

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

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Consulting and Digital Services Providers for the Downstream Oil and Gas Industry 2024 Vendor Assessment (Doc # US51004223). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Advice for Technology Buyers, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

Factors such as market dynamics, regulatory pressures, environmental concerns, technological advancements, and changing consumer preferences are driving business transformation initiatives in the oil and gas (O&G) industry's downstream space. From crude processing to customer experience, downstream players' conventional approach requires multiple upgrades in terms of people, process, asset, and operations efficiency – for instance, eliminating inefficiencies in feedstock contracts, optimizing logistics management, improving the product mix to respond to real-time demand fluctuations, reducing refinery production cost, improving final product pricing, improving planning based on real-time market fluctuations. Downstream players have been slow on their path to digital transformation (DX) and in the past couple of years, they have been looking to adopt digital technologies more than ever before. These companies are looking to optimize operations, improve efficiency, and reduce costs by harnessing power of digital. This includes the use of Internet-of-Things (IoT) sensors, Big Data/analytics, artificial intelligence, and machine learning for predictive maintenance, supply chain optimization, and asset management. IDC Energy Insights' latest survey in 2024 looked deeper into the sentiments of downstream organizations and investigated the state of their processes and operations innovation areas. This 2024 survey indicated that aside from their regular IT spending, most downstream organizations are actively investing in innovative digital solutions, including refinery digital twins, digital supply chain management, and fuel card services innovation.

This IDC MarketScape provides O&G companies globally with insights into the current capabilities and future strategies of IT services vendors in consulting and digital services for the downstream segment of the O&G value chain. This report evaluates service providers' ability to leverage their consulting capabilities (including creativity, strategy, design, experiential design, and people-centric product development), their expertise, and leadership in Innovation Accelerator technologies, along with a range of IT services (such as IT consulting, systems integration, application development, business outsourcing, and IT outsourcing) for their combined execution capabilities to provide a complex consulting-led DX services. These service providers' offerings enable downstream organizations of integrated O&G end users to bring innovative digital use cases to life for executing business processes even more effectively and efficiently.

This report focuses on digital use cases as they relate to downstream O&G business process improvements along the macro areas of digital refining, downstream connected asset, digital forecourt, smart gas station, sustainability, and supply chain optimization. The following digital use cases are evaluated in this IDC MarketScape:

- Digital blending
- Refinery digital twin
- Energy management/energy optimization
- Predictive quality
- Predictive maintenance

- Asset performance management (APM)/enterprise asset management (EAM)
- Refinery operations data analytics and management
- Digital supply chain management
- Real-time refinery operations optimization
- Automation for refinery process optimization
- Oil terminals and storage operations management
- Fuel retail network operations management
- Fuel card services innovations
- Digital fuel station
- Fuel-retail customer experience
- Sustainability and risk management

Besides digitally optimizing core processes, downstream players are increasingly leveraging digital advancements to support their diversification-based growth strategies. This involves reassessing portfolios and aligning them more closely with the global shift toward cleaner energy and sustainability. Key areas of strategic diversification include substantial investments in biorefineries (which convert biomass into renewable fuels, chemicals, and energy) that help reduce greenhouse gas emissions and decrease reliance on fossil fuels. Investments in Sustainable Aviation Fuel (SAF) are also crucial as the aviation industry seeks to lower its carbon footprint. Hybrid fueling stations with electric vehicle (EV) charging networks address growing demand for EV infrastructure, integrating traditional fuel services with EV charging to meet diverse consumer needs and future-proof retail networks.

Overall, the diversification of downstream portfolios reflects a broader trend in the oil and gas industry toward sustainability and innovation. Sustainability-focused investments and the strategic shift toward environmentally friendly initiatives aim at enhancing business resilience and ensure long-term relevance in an evolving energy landscape. Technological and digital advancements that complement ongoing digital integration in core refinery and retail processes are also enabling industry players to remain committed and driving the next wave of innovation to support various futuristic clean energy-related initiatives. This ongoing transformation aligns with regulatory compliance and societal expectations; it presents new growth opportunities in an increasingly competitive and environmentally conscious market.

IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

The playing field for consulting and digital services in the downstream O&G industry is very broad since many firms offer these services. However, only firms that have established a good reputation in the downstream domain of the O&G industry have been considered for this IDC MarketScape. To be considered in this report, IDC analysts stipulated that vendors should meet the following minimum criteria:

- A minimum market share is not required. Nevertheless, the vendor must have an established reputation working in the O&G industry, specifically addressing the domains of analysis.
- A minimum revenue threshold is not mandatory. Indicatively, vendors should have above \$50 million of estimated total revenue in the worldwide downstream O&G market for calendar year 2022.
- The vendor needs to offer a variety of services that are specific to support O&G companies' digital enablement, as defined in the scope of this report by the relevant areas – organization (i.e., workforce); omni-experience (i.e., customer); operating model (i.e., business model/process changes); information; and/or leadership – as a part of a technology implementation.
- The vendor needs to support O&G downstream business processes. Vendors with limited offerings that only cater to specific business processes, for instance IT services to fuel retailers, and do not serve other O&G subverticals will be excluded.

- The vendor must be delivering services to downstream O&G companies in a minimum of two regions from different continents (North America, Latin America, Europe, the Middle East, Africa, Asia/Pacific).

ADVICE FOR TECHNOLOGY BUYERS

This IDC MarketScape on consulting and digital services for the downstream O&G. IDC assessed and compared various offerings from global services providers. Downstream organizations should use this report to support their evaluation processes as they relate to digital services providers with strong consulting and innovation capabilities.

To maximize ROI on the time, money, and efforts invested working closely with service partners, IDC Energy Insights recommends that downstream O&G companies consider the following.

Prioritize Experience and Expertise when Selecting Vendors for the Digital Refining Domain

Prioritize service providers with extensive expertise and a proven track record in delivering consulting-led innovative digital solutions and services. Look for a services provider with deep refinery domain experience, gained through successfully executing complex digital transformation projects. Many providers lack a detailed understanding of refinery processes and thus lack the ability to identify and capitalize on opportunities for digital-driven efficiency enhancements. Therefore, partnering with a highly knowledgeable and experienced provider is crucial.

Weigh Your Strategy and Consulting Capabilities for Complex Services

Ensure your chosen provider can navigate the complexities of current and future needs of downstream operations; they must be able to leverage a solid strategy as well as technology consulting to drive impactful and sustainable results. The service provider's role should include designing and architecting the digital strategy, creating the value case, building a program road map, and defining the digital activation strategy. Service providers must ensure complex digital technologies are deployed to effectively maximize value and pave the way for end users' ambitious goals.

Mandate a Digital ROI Value Assessment Tool as a Part of the DX Offering

DX service providers should provide a digital ROI value assessment tool to help downstream companies evaluate the potential financial benefits of DX initiatives by analyzing current processes, identifying opportunities for improvement, estimating costs, and calculating the expected ROI. This tool should enable end users to set the direction for digital program value, track the true value of a digital solution deployed, establish long-term value governance, and capture expected and realized benefits. However, one should avoid the trap of relying solely on optimistic projections – ensure that assessments are grounded in realistic assumptions and comprehensive data analysis.

Revise the Pricing Model

Revise your pricing strategy by doing the following:

- Focus on long-term cost efficiency by mandating incremental cost improvements as a part of SLAs for maintenance and other long-term services.
- Encourage service providers to innovate by offering incentives and an equal stake in revenue sharing or outcome-based pricing for co-creation and co-development of innovative solutions.

This approach helps organizations align interests and fosters a collaborative environment, which drives continuous improvement and innovation while ensuring cost-effectiveness over the long term.

Support Your Evaluation Process with This Document

Finally, use this report to support vendor selection evaluation process. It will also help you:

- Acquire an independent first assessment of vendors' domain consulting and digital services capabilities for upstream O&G segment
- Leverage criteria used in this report and individual vendor's strength to shape your own individual selection evaluation processes

VENDOR SUMMARY PROFILES

This section explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. The description here provides a summary of vendor's strengths and opportunities.

NTT DATA

NTT DATA is positioned in the Leaders category in the 2024 IDC MarketScape for worldwide consulting and digital services providers for the downstream oil and gas industry.

NTT DATA, a part of NTT Group, is a global IT services company headquartered in Tokyo, Japan. NTT DATA offers a wide range of capabilities, which include O&G consulting, digital strategy services, digital transformation and IT services, tailored business solutions, and outsourcing for the entire O&G value chain, including downstream. The company's proprietary assets, comprising advanced technologies and infrastructure, serve to optimize efficiency and reinforce cost control measures. In the downstream O&G space, the company's major services focus lies in the IT-OT convergence enablement, intelligent operations, operations asset management, connected worker, and sustainability and natural capital management. The company also provides digital solutions and services for gas station operations and digital consumers as well as new energy products and services as they relate to downstream.

Quick Facts

- **Vertical practice:** NTT DATA shares leaderships for energy and utilities, including the O&G practice.
- **Number of employees:** NTT DATA has approximately 2,600 employees dedicated to serving O&G companies globally.
- **Geographic footprint:** NTT DATA serves the global market. It has significant presence across Southern Europe and Latin America.
- **Consulting SMEs:** NTT DATA has over 200 consultants who are domain experts in digital strategy and strategic advisory services for the downstream oil and gas market.
- **Consulting frameworks and blueprints:** NTT DATA offers consulting frameworks linked to O&G industry processes. For example, in the service station practice, it has an operating model/process of how a site should operate ideally, based on its technological asset Syntphony Station. This model includes the processes and responsibilities that enable a station to operate in a lean and efficient way and has been used with several clients adapting it to their needs.
- **R&D:** NTT DATA benefits from its NTT Group-level annual R&D spend, which was \$3.6 billion in 2022.
- **Innovation centers:** NTT DATA has 10 innovation centers that specialize across technologies such as blockchain, XR, AI, the metaverse, quantum computing, and remote sensing technology. Most of its innovation centers serving the O&G industry are in Latin America.
- **Partner ecosystem:** NTT DATA's downstream-focused partners include SAP, Salesforce, Microsoft, Emerson, Rockwell Automation, Siemens, Esri, OverIT, OutSystems, and Anyplan3D.
- **Recent acquisitions or joint ventures:** NTT DATA's partner-led joint offerings include its partnership with Quant Retail to help retailers optimize retail space management using shop-floor planning tool.

Digital Downstream Distinctive Services

- **Digital fuel station:** With its Syntphony Station platform – an end-to-end solution enabling digital fuel station capabilities – the service provider assisted a Spain-based global O&G company in digitalizing its gas station network. Syntphony Station seamlessly integrated IT systems, organized rollout and change management initiatives, and empowered over 500 users worldwide through a dynamic digital learning platform. It also helped with acquiring and customizing a POS solution. Furthermore, collaborating with a Spanish O&G giant, NTT DATA deployed a data-driven smart floor planning tool, optimizing space with unparalleled efficiency.
- **Fuel card service innovation:** NTT DATA implemented digital payment services for the fuel retail business line of a French-based global O&G company with a strong African presence. Using the Microsoft Azure platform for payment processors and loyalty systems, the service provider integrated these components to elevate fuel card service effectiveness. The system enabled clients to access loyalty data and execute payment transactions in real time at gas stations, enhancing convenience and customer experience. The solution centralized payment transactions in the cloud, managing between 800,000 and 1 million payments per day. This collaboration marks a significant enablement of digital payment services, benefiting both the fuel retail company and its customers with enhanced efficiency and reliability.

Strengths

- Leveraging its dedicated "COE Oil Station," NTT DATA excels in digital fuel retail space. Its thought leadership and vision of evolution in every dimension of this fuel retail sector – O&G company, customers, franchisees, and electric vehicles – have received appreciation from its customer base. A downstream customer of its digital gas station services commented that the service provider is "very aligned with the future needs of the industry, because they are in constant growth and innovation."
- Customers appreciate NTT DATA for its quality services, flexible pricing, and seamless ability to comprehend and adapt to their needs. Positive feedback in relationship management and customer service quality further attest to its commitment.

Challenges

- Although the company possesses the resources and domain knowledge to cater to O&G customers worldwide, it faces a challenge in that it is primarily recognized by O&G customers as a prominent player in Latin-influenced regions only.
- There are some gaps in terms of the use cases assessed in this worldwide downstream IDC MarketScape, particularly in the space of refining processes. However, the company has demonstrated service capabilities, domain knowledge, and resources to serve the customers with their service needs.

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 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 vendor markers in this IDC MarketScape represent IDC Energy Insights' best estimates of the vendor's worldwide O&G revenue, within the specific market segment being assessed (consulting and digital services for the downstream O&G industry).

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 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 leading service vendors in enabling and supporting downstream oil and gas companies in their digital journey to digital first organization by doubling down on their digital efforts. The report will have a perspective of worldwide.

For this study, IDC defines digital services as the continuous process by which enterprises adapt to or drive disruptive changes in their businesses and markets (external ecosystem). In this process, enterprises leverage consulting and digital competencies to innovate new business models, products, and services that seamlessly blend digital and physical, and business and customer experiences while improving operational efficiencies and organizational performance. Digital services involve enterprise-wide change requiring innovation in at least one of the following areas as part of a technology implementation: organization (i.e., enterprise functions, workforce); omni-experience (i.e., customer); operating model (i.e., business model) and business process (process changes for refinery operations, supply chain, fuel retail, and fuel marketing); information; or leadership.

This report will specifically look at the following vendor service offerings to downstream oil and gas organizations: business services (including business consulting, BPO, and process services) and IT services. As consulting-led innovative services serve as the foundation for transformative digital services, this report also closely analyzes the consulting and innovation capabilities of the service providers.

LEARN MORE

Related Research

- *IDC MarketScape: Worldwide Consulting and Digital Services Providers for the Upstream Oil & Gas Industry, 2024 Vendor Assessment* (IDC #US51004123, May 2024)
- *Worldwide O&G Industry Quarterly Update: January-March 2024* (IDC #US51559624, May 2024)
- *Decoding Digital Twins and Analyzing Their Value for Oil & Gas Companies* (IDC #EUR151991024, April 2024)
- *Fueling the Future: AI & Generative AI in Digital Oil & Gas Enterprises* (IDC #EUR151918524, March 2024)

Synopsis

This IDC MarketScape evaluates leading consulting and digital services providers by qualitatively and quantitatively assessing their capabilities and strategies regarding their offerings for downstream O&G business. From a worldwide perspective, it aims to support O&G organizations in choosing their partners in their downstream business transformational journeys. It provides context for O&G

companies evaluating vendors in the downstream domain, examines vendors' comparative success in the marketplace, and looks at how vendor offerings are evolving. 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.

"With the downstream business evolving – including sustainable refineries and the lube market, fuel customers' expectations, and future of gas stations – the digital business strategy is gaining more traction. Major downstream players are leveraging advanced technologies and sustainability-focused innovations to enhance operational efficiency and ensure environmental compliance. This approach helps maintain competitiveness and resilience amid regulatory pressures and market demands," said Gaurav Verma, research director, IDC Energy Insights. "Oil and gas companies recognize the need to revise their downstream business models and are seeking the right consulting and digital service partners for developing an effective digital-powered sustainable business road map that could secure their leadership positions in an ever-changing energy landscape."

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. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

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