

HFS Top 10 Energy Service Providers 2019 Excerpt for LTI

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The global oil and gas sector faces two competing priorities as the "energy transition" becomes real: finding new growth avenues while optimizing operational efficiencies, production levels, and capital needs. Emerging technologies promise to solve these business challenges, but the roadmap to success remains unclear.

— Saurabh Gupta, Chief Strategy Officer



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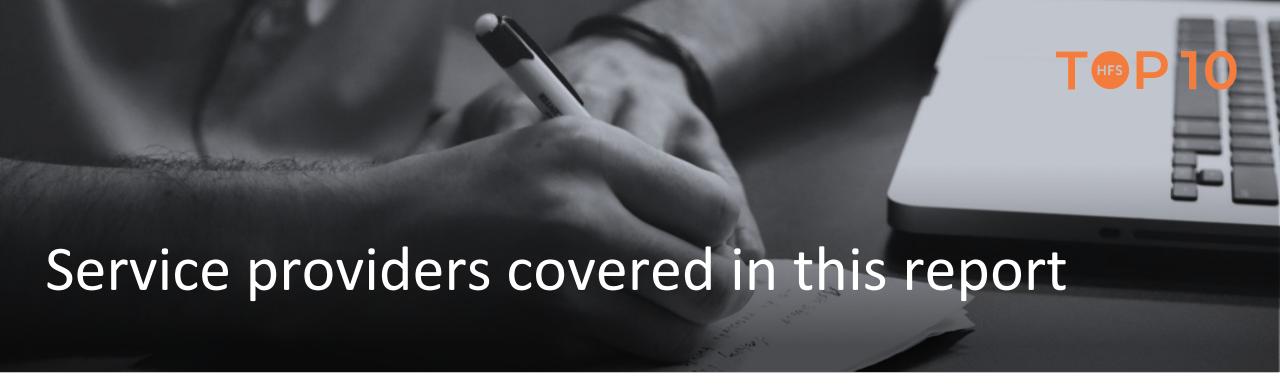
Introduction, methodology, and definitions



Introduction

- The global oil and gas sector faces two competing priorities as the "energy transition" becomes real: finding new growth avenues while optimizing operational efficiencies, production levels, and capital needs. Emerging technologies promise to solve these business challenges but the roadmap to success remains unclear. Consequently, the role of third parties is no longer restricted to cost reduction; it now includes becoming strategic partners to help their clients drive meaningful change.
- The HFS Top 10 Energy services report examines the role service providers play in the uncertain and volatile global energy industry. We assessed and rated the energy-specific service capabilities of 11 service providers across a defined series of innovation, execution, and voice of the customer criteria. The report highlights the overall ratings for all 11 participants and the top five leaders for each sub-category.
- This report also includes detailed profiles of each service provider, outlining their overall and sub-category rankings, provider facts, and detailed strength and development opportunities.
- The report specifically focuses on industry-specific capabilities for the energy sector, as defined in our energy value chain. It does not focus on horizontal IT or BPS services such as application management or finance and accounting outsourcing, which may be delivered to energy clients.































The Energy Top 10 service provider report assessed and scored service provider participants across execution, innovation, and voice of the customer criteria. The inputs to this process were detailed RFIs we conducted with 11 service providers, reference checks with energy clients, briefings with leaders of energy services practices within service providers, HFS surveys with 350 Global 2000 enterprises, and publicly available information sources. Specific assessment criteria and weighting include:



33.3%

Ability to execute

- Size and experience of energy practice including energy sector revenues and the scale of energy BPM and IT services
- Geographic mix of energy clients across North America, Europe, Asia Pacific, and other regions
- Depth and breadth of industry-specific offerings across the energy value chain



33.3%

Innovation capability

- Clear vision for the energy industry including credibility of goto-market strategy and strong understanding of industry trends and challenges
- **Innovative solutions** including platform-offerings, deployment of intelligent automation, and development of internal IP
- Recent (2017-2018) investments in inorganic growth and development of partnership ecosystem
- Co-innovation and collaboration with clients including creative commercial models



33.3%

Voice of the customer

 Direct feedback from enterprise clients via reference checks, HFS surveys, and case studies critiquing provider performance and capabilities



Energy operations value chain



The in-scope services for this study are identified below:

	Upstream	Midstream	Downstream					
	Exploration, development, and production	Transportation	Refining	Distribution	Marketing and retail			
Industry specific	 Asset management Asset integrity management Digital oil field management Drilling and well completion management Petro technical computing infrastructure Reservoir engineering Upstream accounting Upstream engineering and R&D Production optimization Upstream data management Field development and planning and contract management 	 Linear asset management (pipeline operations, modelling, surveillance) Transportation operations management Supply and trading 	 Emission management Integrated refinery information systems Plant operations Refinery production planning and scheduling Supply planning and sourcing 	 Terminal operations Distribution management 	 Energy marketing services Retail and franchise operations Energy trading and risk management 			
	Cross Functional operations							
	Capital project management • Risk management and monitoring • Field force and workforce management • Regulatory compliance • Reporting							
	RPA • Artificial intelligence • Smart analytics • Blockchain • IoT • Cloud • Mobility • Social media Horizontal business processes Customer engagement • Human resources • Procurement • Finance and accounting • Payroll • Legal and compliance Horizontal IT processes							
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ont								
riz	Customer engagement ● Human resources ● Procurement ● Finance and accounting ● Payroll ● Legal and compliance							
£	Horizontal IT processes							
	Planning, design, and implementation ● Application development and maintenance ● Infrastructure management ● Security							



The energy operations value chain defined (1 of 2)



- HFS developed the industry value chain concept to graphically depict our understanding of the processes and functions that specific industries engage in to operate their businesses.
- Industry-specific processes: These processes include the following specific value chain functions:
 - Exploration, development, and production— Processes focused on the search for rock formations associated
 with oil or natural gas deposits, exploratory drilling, designing and building of wells, and the process of
 extracting the hydrocarbons;
 - Transportation— Processes of transporting oil and gas from the field to refining facilities via road, rail, pipelines or water, and the storage of crude oil and natural gas;
 - Refining— Process where crude oil is transformed and refined into products such as petroleum, gasoline, diesel fuel, asphalt base, heating oil, kerosene, liquefied petroleum gas, jet fuel, and fuel oils;
 - Distribution— Processes of delivery of oil and natural gas products from refineries to the end users;
 - Marketing and retail— Processes of trading and retailing oil and gas products.



The energy operations value chain defined (2 of 2)



- **Enabling technologies:** Energy industries are being digitally transformed by various change agents. They include elements such as RPA and AI, IoT, and smart analytics. Our research on these topics will focus on how they are being utilized within energy firms, which service providers are bringing them to the table, and what real business impact is being realized.
- Horizontal IT and business processes: Enterprises in all sectors have a range of
 consistent business and IT processes that are essential to running their businesses but
 are executed similarly regardless of industry. We refer to these as horizontal processes
 and have segmented them by IT and business functions.
- Our coverage of the energy sector will examine core value chain processes across industry-specific and horizontal functions with an emphasis on the impact of critical change agents.



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Executive Summary



Executive summary (page 1 of 3)



The energy industry needs to manage two competing priorities (see Exhibit 1).

- Growing topline revenues and create new business models. Rising social and political pressure in conjunction with technology advances and economic shifts are combining to create a positive atmosphere to address the energy transition in order to lower carbon emissions. Natural gas has replaced coal as the cheapest source for power generation. It's not only much cleaner, it's now also cheaper. Solar and wind have become economically competitive alternatives, with many wind and solar projects now cheaper than generating power from coal, oil and even natural gas. In any case, the demand for natural gas continues to grow and it is seen as a bridge fuel in the energy transition, and it is a big driver for the North American shale revolution.
- Improving bottom-line profitability. In the past, most oil and gas companies let inefficiencies exist in a world of high oil prices and cash abundance. But that changed after 2015 and 2016 when prices crashed from above \$100 per barrel to less than \$40. While the prices have remained somewhat stable in the \$50 to \$70 range in 2017 and 2018, there is a strong imperative to find new efficiencies, optimize production, and decrease capital needs.

Given the revenue and margin pressure, the attractiveness of offshore third-party services is reducing where the primary value proposition is cost-reduction.

• However, more energy companies are planning to expand onshore and localized services (see Exhibit 2) that can bring in the latest and greatest emerging technologies (See Exhibit 3 on the next page) to drive revenue growth while reducing costs.

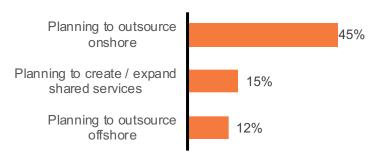
Exhibit 1. Strategic objectives over the next 3 years

(Rank 1 only, 33 energy leaders)



Exhbit 2. Plans to invest in 3rd party services (Offshore versus onshore)

(33 energy leaders)





Executive summary (page 2 of 3)



There are five key initiatives in the energy industry driven by adoption of emerging technologies.

- Real-time data analytics for operational excellence (e.g., predictive analytics driving drilling efficiencies) and safer environments (e.g., analytics on IOT/sensor data creating safer and more efficient operations), engineering breakthroughs using cloud data lakes and operational analytics, and improving forecast accuracies (e.g., reducing cost of inventory through real time supply chain optimization).
- Customer and employee experience such as connected worker solutions leveraging mobility
 and social platforms that empower a smaller, smarter oil and gas workforce; using
 unstructured to understand consumer behavior; and leveraging cognitive assistants for
 querying SOPs, manuals, policies, and specifications.
- Integrated IT (information technology) and OT (operations technology) initiatives such as remote asset surveillance using IoT sensors, predictive maintenance to reduce machine downtimes, material and process optimization using AR/VR digital twins, 3D printing for frequently used and long lead-time spare parts.
- Reduction in CAPEX and optimization of OPEX through modernization of legacy IT operations
 using cognitive automation, cloud, and workplace re-imagination. Even specialized and high
 performance computing applications are starting to move to the cloud as solutions mature and
 energy companies try to reduce their CAPEX dependence. Intelligent automation (IA) initiatives
 are also increasing to automate transactional activities, especially in corporate functions such
 as HR, F&A, and procurement.
- Holistic security investments, especially around cybersecurity, to manage increasing digital threats and leverage managed security services.

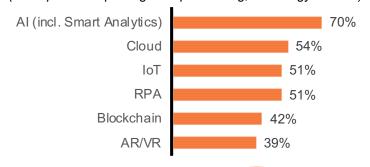
Exhibit 3. Top inhibitors in achieving strategic objectives

(Rank 1 only, 33 energy leaders)



Exhibit 4. Investments in emerging technologies

(% respondents piloting or implementing, 33 energy leaders)





Executive summary (page 3 of 3)



- Despite the promise of emerging technologies to solve business challenges, the roadmap to achieve the strategic objectives remains unclear. Energy companies are uncertain about the financial investments required to meet their challenges. Poor data quality and a lack of digital-savvy talent make decision making even harder. Innovation is often stifled given the risk and compliance concerns, and most initiatives end up becoming small and piecemeal, which are hard to scale at an enterprise-wide level.
- In this report, we assessed and ranked 11 leading service providers in the energy sector to understand how they are helping their clients become successful. The top 10 leaders for the energy sector are Accenture, Infosys, TCS, Wipro, LTI, HCL, Tech Mahindra, DXC, NTT DATA, and Cognizant. These firms exhibited a strong mix of service execution excellence, applied innovation and vision, and verified customer satisfaction to rise to the top of our energy sector study.



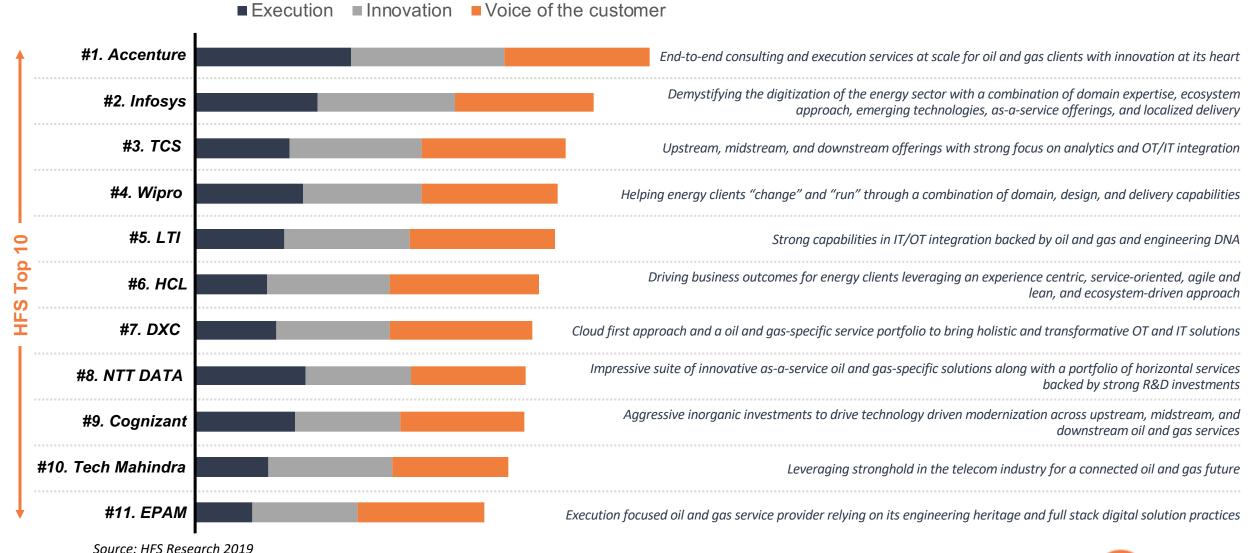
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The HFS Top 10 Energy service provider results



HFS Top 10 Google Al services 2019







HFS top five energy sector service providers by individual assessment criteria



	Overall	Execution			Innovation				
Rank		Size and experience	Geographic mix of clients	Value chain coverage	Investments and ecosystem	Innovative solutions	Co-innovation and collaboration	Clear vision for energy	Voice of the customer
#1	accenture	accenture	accenture	Infosys °	accenture	accenture	LTI	accenture	HCL
#2	Infosys®	DXC.technology	NTTDaTa	accenture	Infosys®	TATA TATA CONSULTANCY SERVICES	accenture	Infosys®	accenture
#3	TATA CONSULTANCY SERVICES	NTTDaTa	Infosys®	wipro	Cognizant	Infosys®	Cognizant	TATA CONSULTANCY SERVICES	LT1
#4	wipro	Infosys®	DXC.technology	LT1	LT1	wipro	HCL	HCL	TATA TATA CONSULTANCY SERVICES
#5	LT1	TATA TATA CONSULTANCY SERVICES	wipro)	Tech Mahindra	TATA TATA CONSULTANCY SERVICES	LT1	Tech Mahindra	wipro)	Tech Mahindra

Notes

- Service providers assessed: Accenture, Cognizant, DXC, EPAM, HCL, Infosys, LTI, NTT Data, TCS, Tech Mahindra and Wipro
- · Source: HFS Research, 2019



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Energy service provider profile





Strong capabilities in IT/OT integration backed by oil and gas and engineering DNA



Dimension	Rank					
HFS Top 10 position	#5					
Ability to execute						
Size and experience:	#8					
Geographic mix of clients	#8					
Value chain coverage	#4					
Innovation capability						
Investments and ecosystem	#4					
Innovative solutions	#5					
Co-innovation and collaboration	#1					
Clear vision for energy	#6					
Voice of the customer	#3					

Strengths **Development opportunities**

- Strong group DNA in oil and gas: LTI has deep domain knowledge in the energy operations space given its Parent, Larsen & Toubro (L&T), is one of the largest Indian multi-national firms and a leading construction company in India. The L&T heritage allows LTI to bring in top talent but also leverage L&T as a test-bed for its new solutions.
- Services across upstream, midstream, and downstream: Including end-to-end architecture definitions, product selections, implementations, and solution development for the oil and gas technology stack.
- MOSAIC Platform: The platform (for analytics, automation, AI, user experience, IoT, cloud and security) has had positive traction among LTI's energy clients to drive innovation at the convergence of digital and physical.
- Focus on client centricity: The LTI 2.0 vision is to transform LTI as one of the most client-centric suppliers by investing in innovation at the IT/OT convergence, service leadership, and focus on talent.
- Brand recall as a service provider in energy domain: Despite its strong credentials, HFS has yet to see strong global brand recall for LTI's energy services beyond leveraging L&T's presence in the market.
- Consulting capabilities: Despite strong domain understanding, LTI lacks a strong consulting/advisory practice to help gain greater mindshare with its oil and gas clients as a partner beyond a service provider.

Global operations

Dedicated 2.100 FTEs

North America (US,

Canada, Mexico)

India (Mumbai, Pune,

Chennai, Bengaluru)

(Australia, Singapore,

Philippines (Manila)

Other APAC

China, Japan)

and resources

globally

Locations:

Relevant acquisitions and partnerships

Acquisitions:

Ruletronics, a Pega consulting company (January 2019)

Partnerships:

- Partnerships: Weatherford, EnergyIQ, eVision, Schneider Electric, TIBCO, PPDM, CoreWorx, NRX, Bentley, eVision, Reliasoft, Skire, Riversand, Rockwell Automation, Yokogawa, CyberX, Emerson, Siemens, Mitsubishi, GE Predix, Vuzix, IBM and Dagri.
- Go-to-Market: Microsoft, SAP, Oracle, OSISoft
- Academia: MIT, PPDM, IIC, University of Petroleum & Energy Studies, Indian School of Petroleum
- Technology: Dell, SAP, Oracle, Microsoft, AWS, Siemens, Dassault Systems, IBM, GE Digital, TIBCO, OSIsoft, HP, CISCO, Pegasystems, Nutanix, Quintiq, Emerson, CyberX, NRX, Skire, Thoughtspot, **Duck Creek**
- Platforms: Salesforce.com, Workday, ServiceNow, Successfactors,
- RPA: UiPath, AutomationAnywhere, Blueprism, Workfusion
- BI/Analytics: MarkLogic, Tableau, Cloudera, Informatica, MicroStrategy

Key clients and locations

Pure IT player Client mix by geography:

- North America: 35%
- Latin America: 3% • Europe: 26%
- Middle East: 23%
- Africa: 3%
- Asia Pacific: 10%

32+ clients including:

- US-based Major IOC
- American multinational energy corporation
- US-based downstream energy company
- US-based petrochemical JV
- UK-based major IOC

Recent developments in support of energy sectors

- Deshpande as Chief Operating Officer.
- October 2018: LTI and PTC unveil IoT Centre of Excellence.
- May 2018: LTI Joins the Enterprise Ethereum Alliance.
- October 2017: Strategic implementation partnership with Apttus for enabling digital transformation initiatives in oil and gas, etc.
- August 2017: L&T Infotech unveils new brand identity as LTI.





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About the authors



HFS Research authors





Saurabh Gupta
Chief Strategy Officer | HFS Research

Saurabh oversees HFS' global research function managing the global team of analysts across US, Europe, and Asia-Pac. He works closely with the CEO to set the strategic research focus and agenda for HFS Research, understanding and predicting the needs of the industry and ensuring that HFS maintains its position as the strongest impact thought leader for business operations and services research.

As an analyst, Saurabh leads our coverage for horizon 3 change agents such as blockchain, business services (such as finance & accounting and supply chain) as well as overarching and cross-cutting themes under the OneOffice concept like digital change management



Mayank Madhur Knowledge Analyst

Mayank Madhur is a Knowledge Analyst at HFS Research, supporting different practice leads in area of Industry Research, IoT and Blockchain by working on secondary research, data analysis, PoVs and research writing.

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