



# HFS Top 10 Microsoft AI Services 2019

## Excerpt for Accenture

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**TOP 10**  
HFS

January 2019

“Microsoft is emerging as the most ‘enterprise friendly’ AI ecosystem. As enterprise clients grow more comfortable with AI initiatives using the Azure technology stack, the services market is quickly developing around client demand. HFS expects this market to pick up significantly in the coming year as AI services and technology as a whole see greater adoption and as Microsoft and its services partners make more concerted efforts to bring more relevant and timely AI solutions to large enterprises.”

– *Reetika Fleming, Research Director*

# What you'll read

Topic	Page
Introduction, methodology, and definitions	4
Executive summary	13
The HFS Top 10 Microsoft AI services providers results	17
Microsoft AI services provider profile	20
About the authors	22

# Introduction, methodology, and definitions

# Introduction

- Artificial intelligence (AI) may be a buzzword, but is undoubtedly also cementing itself as a key change agent in the way enterprises do business. Its capacity to derive deep insights from unstructured data, to learn and improve from its own activity, and to optimize business operations means that despite still being a nascent technology, its value to organizations is clear. And few are better positioned to deliver the power of AI to enterprises than Microsoft, a technology giant with extensive cloud delivery and hosting infrastructure, ground-breaking AI R&D, and longstanding experience working with large enterprises.
- This HFS Microsoft AI Services Top 10 Report examines the part service providers are playing in the nascent AI landscape. We assessed and rated the Microsoft AI services capabilities of 14 service providers across a defined series of innovation, execution, and voice of the customer criteria. The report highlights the overall ratings for all 14 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 strengths and weaknesses.
- References are on occasion made to service providers' broader AI capabilities, but this report's primary focus is on service provider's capabilities as specific to Microsoft AI solutions.

# A comprehensive AI tech stack and robust B2B pedigree are driving enterprise adoption of Microsoft AI services

Microsoft boasts several key characteristics that are striking a chord with enterprises looking to leverage cloud AI technologies and services, including:

- **Historic ties to the enterprise space.** Many Microsoft AI enterprise clients already have longstanding and mature relationships with, and investments in, Microsoft, specifically through products like Office 365, Dynamic 365, and Azure. They're already Microsoft consumers, so synergies already exist in terms of pace of work and familiarity with MS technologies. Because so many enterprises already use these products, they trust Microsoft enough to turn to it for a more nascent technology like AI. Microsoft takes data security very seriously and is capable of securing clients' data estates through its cloud computing and cloud infrastructure capabilities. Microsoft was also an early advocate of explainable AI, which makes its AI offerings more attractive as transparent and auditable AI becomes a growing priority for enterprises.
- **A comprehensive range of AI offerings.** Microsoft has been universally lauded for its comprehensive, end-to-end AI cloud technology stack, ranging across data ingestion, intelligence, prediction, and visualization capabilities and spanning from the front to back office. Service providers also singled out its packaged cognitive services and experience with both desktop services and collaboration tools at the enterprise level. Its stack includes text analytics; natural language processing, natural language generation, and natural language understanding capabilities; and translation services.
- **Flexibility and technology agnosticism.** Beyond its range of proprietary offerings, under new management Microsoft has prioritized technology agnosticism. This newfound dedication to what one service provider calls "open cloud and platform strategies" allows its clients to migrate to Azure with ease and to use a wider range of AI tools available on the market. Microsoft now has "a more tool-agnostic developer perspective than ever before". This is evidenced in Microsoft's growing integration of open-source technologies like TensorFlow for best client outcomes.
- **Strong delivery capabilities.** This broad technical expertise and enterprise knowledge makes for strong delivery capabilities. Working closely with clients for diverse industries, Microsoft has amassed deep function and process knowledge, driving faster time-to-market and on-target results for clients. Working across the full range of AI technologies, Microsoft is also skilled at using and combining them creatively to come up with solutions to the trickiest of client challenges. Moreover, its granular knowledge of its buyers means it is adept at helping enterprise scale up AI deployments, allowing it to be more than a passive supplier in service engagements. Microsoft is also lauded for its willingness to co-ideate with clients and service providers to come up with optimal outcomes tailored to different enterprises' particular needs.
- **Robust AI R&D.** Microsoft boasts over 25 years' worth of research and development (R&D), particularly through Microsoft Research. It has positioned itself as a market leader in technologies including computer vision, IoT, speech recognition, and NLU. It's also not one to rest on its laurels: it keeps a close eye on new developments and trends in the AI space, as exemplified by its recent investments in autonomous technologies in and beyond the automotive space, as well as edge capabilities and ambient AI.

# Microsoft AI tech stack overview

**Microsoft Azure:** All Microsoft AI capabilities are native within Azure, Microsoft's flagship cloud computing service. Azure enables clients to develop, launch, and maintain applications and services, of which AI is just one sub-category. Azure is run on Microsoft-managed, globally distributed data centers. Azure is used by approximately 90% of Fortune 500 companies.

Developer tools and DevOps

Infrastructure-as-a-service

**Azure AI:** Microsoft is building out advanced cognitive and intelligent capabilities and services under the Azure AI umbrella. Its core components are:

**AI applications and agents:** Microsoft is building out a suite of applications—Microsoft Cognitive Services—that can interact naturally with users by mimicking intelligent conversation using NLP, NLG, and NLU technologies. Features include pretrained AI models for computer vision, speech recognition, translation, intelligent web search, emotion and sentiment detection, and the Azure Bot Service for accelerated bot development. These tools can be easily integrated into users' applications and deployed across iOS, Android, and Windows devices. Enterprise users include HP and UPS. Microsoft Cortana Intelligence, a cognitive assistant service, also sits in this part of Azure AI.

**Machine learning:** Microsoft is helping users develop their own machine learning capabilities, including deep learning solutions, enabling client computers to better use and act on internal business data without explicit training, and cognitive services to augment human employees. The ML platform has 5 key components: pretrained ML models, ML frameworks, ML services, supporting infrastructure, and support for flexible deployment (via cloud, edge environment, or a hybrid approach).

**Knowledge mining:** Microsoft offers services that help enterprise clients gather insights and form business intelligence from across their enterprise data from sources including documents, video footage, and audio recordings, covering both structured and unstructured data sets. Cognitive skills such as "Azure Search" extract data from Excel, Word, and countless other sources to create useful metadata which allow business clients to make more informed business decisions.

# Service providers covered in this report

accenture

Atos

Capgemini

Cognizant

EY

HCL

Infosys

KPMG

LTI

Mphasis  
The Next Applied

NTT DATA

TATA  
TATA CONSULTANCY SERVICES

Tech  
Mahindra

wipro



# Research methodology

The Microsoft AI Services Top 10 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 14 service providers, client feedback from reference checks and HFS network clients, briefings with leaders of Microsoft AI Services and alliance practices within service providers, HFS surveys with 659 Global 2000 enterprises, and publicly available information sources. Specific assessment criteria and weighting include:



33.3%

## Ability to execute

- **Depth and breadth of offerings** including capabilities across the HFS AI services value chain, use case identification, experience with and development of solutions across Microsoft AI technology stack
- **Scale** including deployments, clients, Microsoft AI trained resources and certified talent, and commercial traction and growth
- **Delivery of value** including the ability to drive value through end-to-end process transformation, change management, and governance expertise



33.3%

## Innovation capability

- **Microsoft AI strategy and roadmap** including vision and credibility of strategy, integration with broader intelligent automation strategy, and identifiable investments in the Microsoft AI tech stack
- **Focus on business outcomes and process transformation** including the ability to deliver outcomes, models for co-innovation around process transformation, and transformation consulting
- **Technology innovation** including depth and breadth of internal AI-related IP and external partnerships across the Microsoft ecosystem



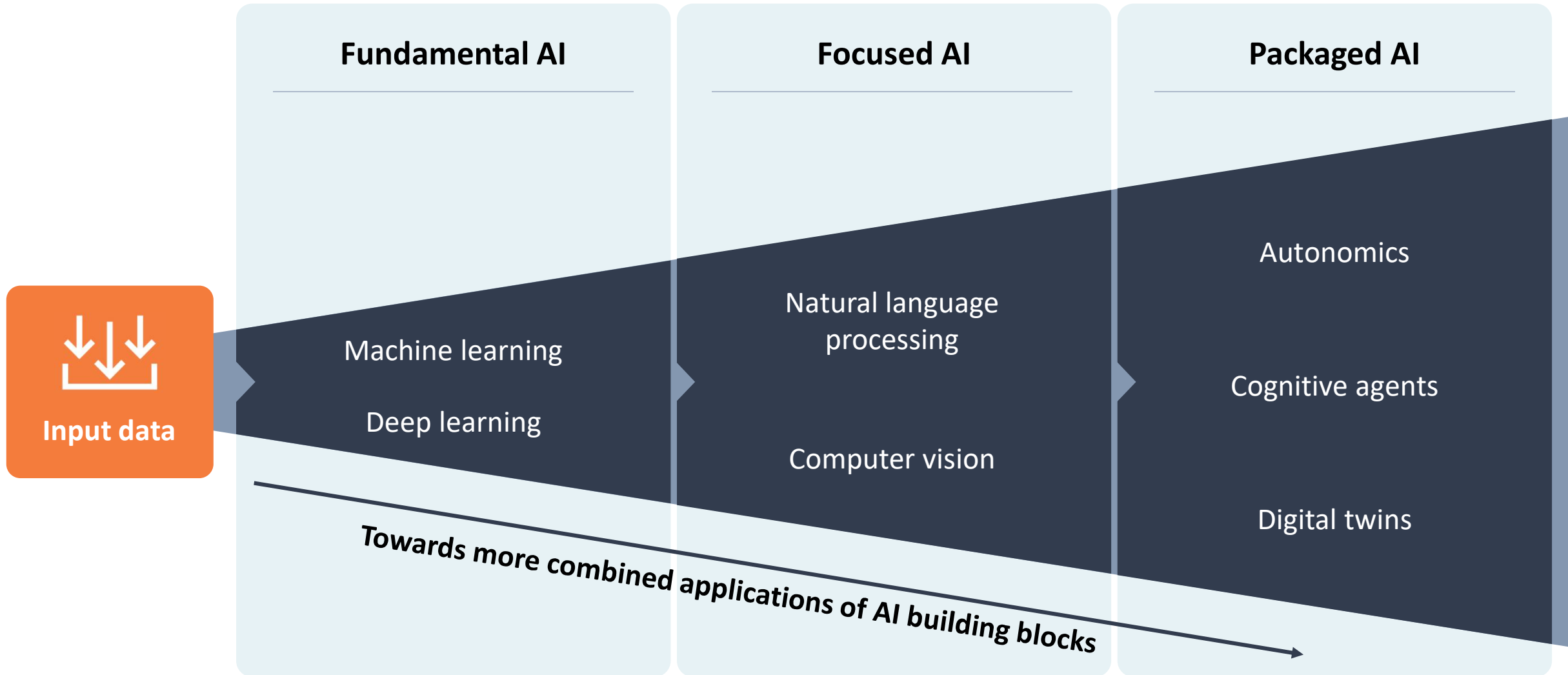
33.3%

## Voice of the customer

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

- As the HFS [Enterprise Artificial Intelligence \(AI\) Services 2018](#) report outlines, **artificial intelligence (AI)** is many things: It is hyped, it is undefined, it is becoming pervasive, and it is fostering emotional and at times, heated discussions. However, many of those discussions are focused on consumer-facing issues such as self-driving cars, drones delivering Amazon purchases, or robotic home helpers. The broader market is not yet recognizing the nearer-term impact of AI on B2B and Enterprise operations. AI aims to automate intelligent activities that humans associate with other human minds through a combination of reasoning, knowledge, planning, learning, natural language processing (communication), and perception (aka cognitive). There are many subcategories of AI, each suited to execute particular types of tasks, as outlined in the [HFS Dummies' Guide to Enterprise AI](#).
- **AI Services** is the provision of planning, implementation, management, operations, and optimization services in support of enterprise utilization of AI software, processes, and resources to achieve digital transformation and defined business outcomes.

# The building blocks of AI *(illustrative)*



# The HFS AI services value chain

## Plan

- Advisory on autonomics, cognitive computing, and AI
- Workshops on IA vendor landscape and implications
- Automation opportunity assessment
- Business case development for automation deployment
- Operating model evaluation
- Automation roadmap
- Compliance and risk assessment
- Security implications
- HR and talent management strategy
- Governance policy
- Rollout strategy

## Implement

- Program management for process automation
- Process automation and customization
- Solution and technical design
- Process recording, mapping, and updating
- Data extraction from heterogeneous systems
- Leverage repository of pre-built components and utilities
- Predictive analytics
- Specialist development modules
- Enterprise systems integration

## Manage

- Governance management
- Maintenance of automated processes
- Optimization of BPO contracts and SSC delivery
- Upgrade support
- IA help desk
- Ongoing integration
- Support and maintenance
- Testing and QA
- New release and upgrade coordination
- Training and certification
- Acceptance testing
- Change management

## Operate

- Infrastructure management
- Application management
- IT help desk management
- BPO
- (Ro)Bot-as-a-Service
- Real time analytics
- Identify any required changes in service delivery or process to account for changing business requirements (e.g., M&A, divestment, new investments in IT)
- Mandatory regulatory adjustment ramification management and resolution

## Optimize

- New feature value identification and benefit analysis
- Ongoing adds and upgrades, migrations, and consolidation
- Integration of big data analytics and insights
- Best practice understanding, documentation, and end-user adoption, content creation, and curation
- User community participation

# Executive summary

- **Microsoft is emerging as the most “enterprise friendly” AI ecosystem.** Many Microsoft AI enterprise clients already have longstanding and mature relationships with, and investments in, Microsoft technologies. Because they’re already Microsoft consumers, synergies already exist in terms of pace of work and familiarity with Microsoft, especially cloud migration efforts to Azure. Along with familiarity, enterprise clients are choosing to work in Microsoft’s AI ecosystem because of its comprehensive range of AI offerings across data science and conversational AI, robust AI R&D, and a new focus on technology agnosticism.
- **Microsoft AI alliances are gradually coming together, with market leaders making strategic commitment to future growth.** Most large service providers, including IT services firms and consulting houses, have established or expanded their Microsoft alliances to include AI-specific strategies. Joint go-to-market activities with Microsoft are taking the form of:
  - capability development (POC and pilot funding, talent development);
  - market awareness creation and sales planning (joint account planning, campaign work such as Microsoft’s “Make AI Real” workshop series); and
  - technical collaboration (joint research, IP creation).

Service providers such as Accenture, KPMG, and Cognizant are instrumental across all three of these alliance activities. By contrast, Microsoft AI-specific alliance development is more of a development area for mid-tier IT services firms such as Mphasis and LTI, making it challenging for them to collaborate and coordinate with Microsoft on various fronts.

- **The overall Top 10 leaders are** Accenture, KPMG, Cognizant, TCS, Infosys, Atos, Wipro, EY, HCL, and Capgemini. These service providers have demonstrated a credible execution capability for Microsoft AI services, focused on driving innovation in this emerging market, and have the voice of the customer shaping their performance in our study.

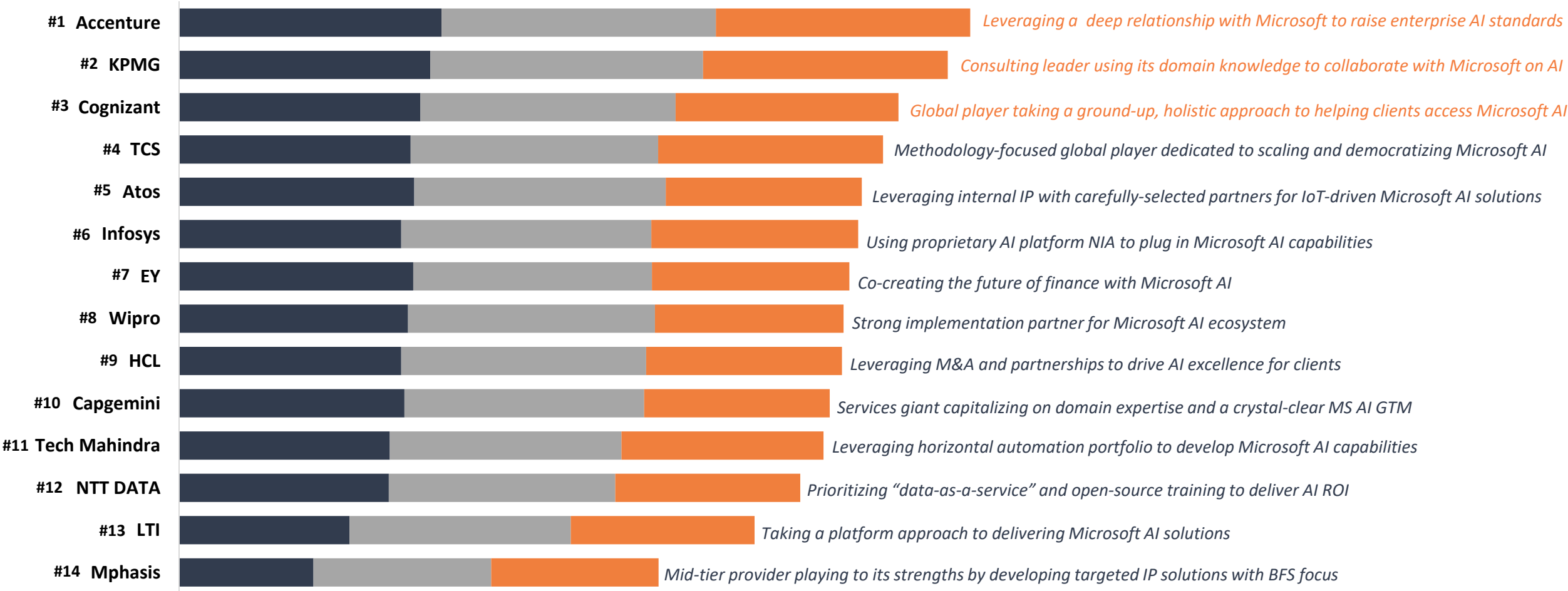
- **A niche in the making within a much larger, dynamic AI marketplace.** Microsoft AI services is a still-developing market niche, growing as a subset of the broader AI services industry. Service provider capabilities are still evolving, with the most headway made in the last two years. Similarly, client organizations are gradually getting more comfortable with exploring Microsoft's AI technologies through a combination of internal and external resources. Microsoft AI services is perhaps the most mature and organized subset compared with other cloud AI majors such as Amazon, IBM, and Google. HFS expects this market to pick up significantly in the coming year as the AI services industry as a whole sees greater adoption and Microsoft and its partners make more concerted efforts to bring more relevant and timely AI solutions to large enterprises.
- **Many solutions in development, getting ready for Azure AI marketplace.** Services buyers seek Microsoft AI solutions that solve their specific business problems and that are relevant to their industries. Clients in our research, for example, highlighted their service providers' experiences in a certain industry vertical or targeted use cases that led the providers to the creation of pre-built assets and IP. These are valuable starting points for a lot of enterprises that are just getting started with AI and seeking a partner that has solutions available on Azure. This is going to be the way forward for service providers, as Microsoft creates more of an AI marketplace for specific industry verticals and business functions.
- **Market adoption for Microsoft AI services is primarily POC and pilot based.** Most service providers report having engagements that are at the exploration stage or that they are actively piloting with clients. A significantly lower number of these engagements are live in production. Many service providers are gaining experience with the constantly changing MS AI technology advancements through self-funded POCs for chosen clients, and Microsoft is investing in the success of these initial engagements. We do see consistent expectations across both clients and service providers to significantly mature capabilities in the next 18 months toward more packaged AI initiatives for specific industry verticals and use cases.

- **Talent development is a net-new effort across the industry.** Finding, developing, and retaining talent is a challenge for AI as a whole. Microsoft AI-specific talent is even more scarce. This is already becoming the real testing ground as service providers gear up to address market demand. The majority of Microsoft AI resources, including data engineers, data scientists, and solution architects, is being pulled from common talent pools across technology platforms. However, leading service providers are training existing data, analytics, and AI teams on MS AI, with a few hyper-focused on growing the number of certified professionals for Azure ML and MS Cognitive Services. This is one of the biggest investment priorities for both Microsoft and service providers such as Accenture and Cognizant that view the technology vendor as strategic to their AI growth.
- **Co-innovation—with Microsoft and with end clients—is the name of the game.** Service providers that prioritize ways of engaging with Microsoft on both account planning and product engineering will pull away as leaders in this emerging market. Clients are similarly seeking external partners that are willing to co-innovate with them in specific areas such as intelligent underwriting, retail virtual agents, cruise line guest experience improvement, and sensor-driven smart inventory management. This is where service providers are adding most value for end clients—creating highly-specific IP solutions on top of the more broad-based Microsoft AI tech stack.
- **Diverse range of capabilities with service provider landscape.** Clients in our research highlighted the consulting and advisory strengths of providers such as EY, Accenture, and KPMG that have been crucial in getting Microsoft AI initiatives off the ground under good guidance. Meanwhile, providers such as Cognizant, TCS, and Infosys bring impressive depth and resources in foundational AI areas including big data, cloud, analytics, and data estate modernization. Having said that, we see service providers gradually expanding their capabilities across the AI services value chain.



# The HFS Top 10 Microsoft AI service providers results







# HFS Top 10 Microsoft AI services 2019



■ Execution   ■ Innovation   ■ Voice of the Customer

Source: HFS Research 2018

# HFS top five Microsoft AI service providers by individual assessment criteria

HFS ranking	Ability to execute			Innovation capability			Voice of the customer
	Depth and breadth of MS AI service offerings	Scale	Delivery of value	MS AI strategy and roadmap	Focus on business outcomes and process transformation	Technology innovation	
#1							
#2							
#3							
#4							
#5							

Source: HFS Research 2018

# Microsoft AI services provider profiles

# Accenture: leveraging a uniquely deep relationship with Microsoft to raise enterprise AI standards across industries

Dimension	Rank	Strengths	Development opportunities
HFS Top 10 position	#1	<ul style="list-style-type: none"> <li>• <b>Unique Microsoft partnership with Avanade.</b> Formed in 2000, Avanade is a joint venture between Microsoft and Accenture, today majority-owned by the latter. It's a 35,000-person consulting operation dedicated to helping clients implement and get the most ROI out of Microsoft technologies, including AI. Avanade collaborates closely with Accenture's intelligent automation practice, ensuring that there is a constant feedback loop between Accenture, Avanade, and Microsoft and leveraging the strengths of each individual entity to deliver AI success for clients.</li> <li>• <b>Segmented AI training.</b> Accenture recognizes the wide range of capabilities within the AI umbrella, and segments its training approach into manageable modules accordingly. Its "AI-aware" program trains staff in AI capabilities based on their existing technology expertise and background. This helps ensure real depth of AI training for employees and true specialization within a diverse technological umbrella.</li> <li>• <b>Using Microsoft experience to help clients' cloud AI journeys.</b> Accenture and Microsoft's 30-year relationship has made them each others' biggest clients. This gives Accenture and Avanade an intimate knowledge of Microsoft's tools, where they can best be applied, and where improvements or additions can be made. This perspective helps it fine-tune clients' MS experience.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Geographical expansion.</b> Collectively, Accenture, Avanade, and Microsoft have 120 delivery centers globally in multiple countries. Now, Microsoft and its partners are doubling down on identifying geographies where economic and regulatory conditions mean AI is likely to take off soon, and are planning early for these new growth opportunities. This will open even more revenue channels for the partners' joint AI GTMs.</li> <li>• <b>New growth areas.</b> As Microsoft begins to invest ever-more into edge environment devices and the IoT, Accenture can capitalize on this by extending its consulting capabilities to cover these avant-garde areas where much is still in flux, and where clients will doubtless seek advice. These are also areas in which Accenture's strong focus on enterprise data security could certainly prove valuable, as clients seek to mine more data sources while keeping such information safe and staying within tightening data-use regulations.</li> </ul>
<b>Ability to execute</b>			
Depth and breadth of offerings	#1		
Scale	#1		
Delivery	#2		
<b>Innovation capability</b>			
MS AI strategy and roadmap	#2	<b>Key clients and practice details</b> <ul style="list-style-type: none"> <li>• Accenture and Microsoft have a 30-year, 360-degree premier relationship and are each other's biggest clients.</li> <li>• In March 2018, the partners struck a formal agreement to help clients solve business challenges using AI under which at least 15,000 more Accenture staff will undergo Microsoft AI training.</li> <li>• Accenture has over 4,000 clients and 10,000 projects specific to Microsoft technologies. It boasts 26,000 gold Microsoft certifications.</li> <li>• Accenture dedicates a large proportion of its R&amp;D budget—which totalled \$704 million in fiscal 2017—to AI. Many of its 150 biometric and 125 video analytics patents also leverage AI technologies.</li> <li>• Accenture and Avanade invest upward of \$900 million yearly in employee training and company development. The recently-established Accenture Connected Learning program has trained over 168,000 staff in automation and AI.</li> </ul>	<b>Client case study highlights</b> <p>Accenture has carried out over 100 AI PoCs globally, with key clients including household names in consumer goods, retail, telecom, and banking:</p> <ul style="list-style-type: none"> <li>• <b>Strategic Profitability Insights.</b> Mexico's largest Coca Cola bottler was struggling to grow market share without significant outlay on in-store marketing. The client used Accenture's Strategic Profitability Insights solution, built on Microsoft AI, to better predict how, when, and where to place and promote its in-store stock. This led to a 30% reduction in marketing expenses in two months, as well as market share growth.</li> <li>• <b>Continuous Operational Optimization.</b> A US retail household name partnered with Accenture to enhance its data and analytics models for continuous operational optimization. The client is using Accenture's Customer Analytic Record and Customer Planning and Activation models to make its client relationships more profitable and durable. Microsoft is providing the expertise necessary to customize these solutions further to better meet the client's needs.</li> </ul>
Focus on business outcomes and process transformation	#1		
Technology innovation	#1		
<b>Voice of the customer</b>	#1		

# About the authors



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Reetika Fleming is Research Director, Insurance, Smart Analytics, and AI at HFS Research. She studies the broad use of data and analytics within enterprises, with a new research focus on machine learning and AI techniques to improve business decision making. Her research extends into defining future business operations for property and casualty, life, and annuities and reinsurance companies.

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