TOP 10

HFS Research

HFS Research: Defining future business operations

HFS Top 10 Cognitive Assistant Service Providers

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What you'll read

Introductions and Definitions

Introduction to *HFS Top 10 Cognitive Assistant Service Providers*

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- Cognitive agents are part of conversational services that are poised to have a significant impact on business operations. They also have the potential to help create organizations that are more agile, predictive, and customer-centric, in the way that we have outlined with our HfS Digital OneOffice framework.
- In this inaugural HFS Top 10 research, we explore the emerging service provider ecosystem for conversational services that we call cognitive assistants—the intelligent, automated interactions that replace or augment human customer-facing transactions and processes and internal enterprise interactions and processes.
- HFS Research sees cognitive assistants as the combination of conversational interaction and process execution capabilities; it combines characteristics of smart analytics and artificial intelligence. These services can include front-office facing elements (e.g., conversations with end customers) and internal employee use cases (e.g., help desk, HR onboarding, assisting contact center agents).
- The goal of this HFS Top 10 research is to help you understand services that incorporate the cognitive assistant capabilities and use cases that go well beyond traditional chatbots and IVR to have a greater impact on business outcomes.
- We based this research on interviews with 300 enterprise clients of IT services from the Global 2000 in which we asked specific questions about innovation and execution performance of service providers assessed. We augmented the research with information collected in Q1 and Q2 2018 through provider RFIs, structured briefings, client reference interviews, and from publicly available information sources.
- The research provides a comprehensive assessment of 19 service providers—Accenture, Cognizant, Concentrix, Convergys, CSS Corp, DXC, EXL, Genpact, HCL, IBM, Infosys, LTI, Sitel Group, Sutherland, TCS, Tech Mahindra, Teleperformance, Wipro and WNS—based on their execution ability, innovation capability, and the voice of the customer. Service providers may have developed these technical capabilities internally or are using partners to execute services related to cognitive agents (or both).
- The service providers we evaluated use various terms including smart agents and virtual assistants; thus, in the profiles, there are some variations on naming conventions used with regard to the providers' respective solutions and go-to-market strategies. We think it is much more important to understand what business problems these bots solve (rather than what they are called), the services they provide, and the opportunities they present. Cognitive assistants can combine characteristics of conversational and voice-focused services, but ultimately are more sophisticated virtual assistants with the ability to learn and the potential to substitute for human-agent interaction.

Service providers assessed in this report

HFS TOP 10

accenture

Cognizant

CONCENTRIX

CONVERGYS

CSS CORP

DXC.technology

EXL

genpact

HCL

IBM

Infosys

LTI Let's Solve

sitel group

SUTHERLAND

TATA CONSULTANCY SERVICES

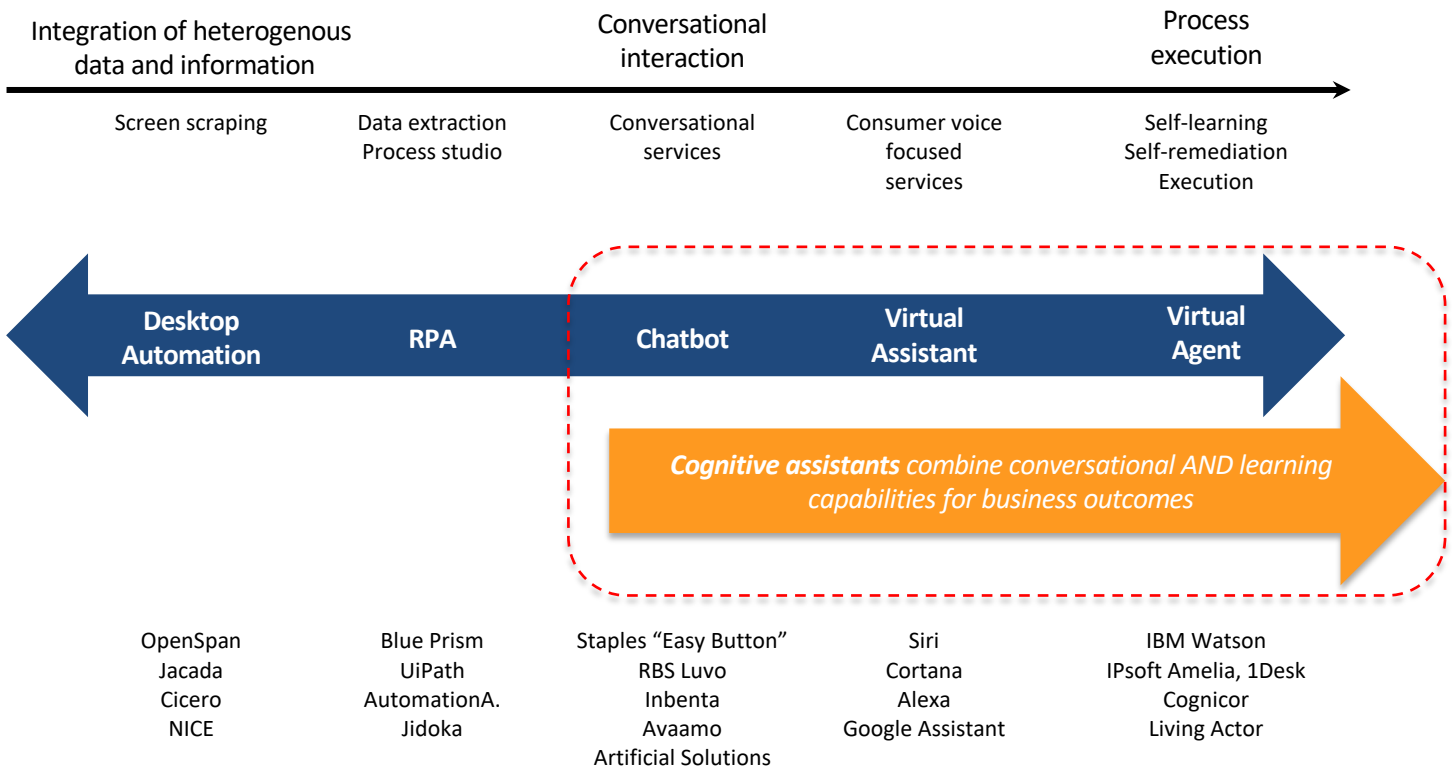
Tech Mahindra

Teleperformance

wipro

WNS Extending Your Enterprise

Cognitive assistants represent a combination of conversational interaction and process execution capabilities



Note: the continuum above does not represent a linear evolution but rather the different building blocks of automation.

- Cognitive assistants are part of the evolution on the continuum of service agent automation and intelligence.
- "Dumb bots" become more intelligent bots as they gain experience; these more sophisticated cognitive assistants are poised to significantly impact business operations.
- Most people are familiar with more consumer-focused conversational assistants like Alexa and Siri or traditional chatbots that provide automated conversations using rules-based programming. Enterprise-level cognitive assistants, while still nascent, have learning and processing capabilities that transcend those basic conversational tools.
- At the more sophisticated end of the spectrum, cognitive assistants will have the abilities to self-learn, self-remediate, and execute on business processes. They are also often able to understand structured and unstructured data and to use natural language processing to learn, comprehend, and recommend next steps.
- Advanced cognitive assistants may also enable predictive decision making using real-time analytics. They can be used externally to communicate with customers in customer service inquiries and internally to augment customer service staff with knowledge management, to support the IT help desk, or to assist with HR or finance processes (such as employee onboarding).

Cognitive assistants represent a combination of conversational interaction and process execution capabilities

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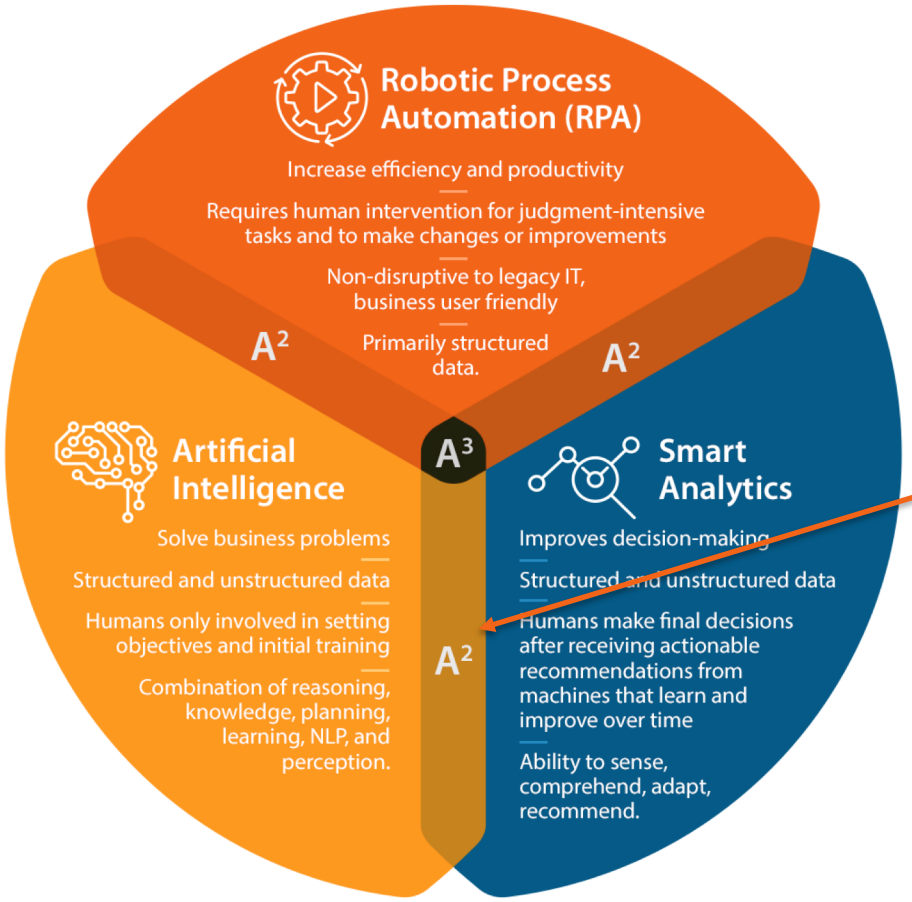
The HfS Triple-A Trifecta: Automation, Analytics and AI



Source: HfS Research, 2018

Cognitive assistants typically exhibit characteristics of smart analytics and AI

HFS Research

Scope of the HFS Top 10 cognitive assistant service providers research

This report focuses on the conversational services that have one or more of the following characteristics

Solves business problems	• *Engaging customers on digital channels* • *Opening new revenue streams, improving speed and security of employee onboarding*
Handles structured and unstructured data	• *Integrating with discovery platforms* • *Processing social media feeds, digital pictures, and video*
Uses reasoning, NLP, and perceptive capabilities (sentiment)	• *Managing context* • *Processing natural language* • *Analyzing sentiment*
Goes beyond narrow conversations typically associated with chatbots or IVR	• *Making personalized recommendations* • *Executing business processes*

Executive summary

Executive summary (page 1 of 2)

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- **The focus of cognitive assistants is generally about augmentation of employee work rather than replacement.** Automation tools can often replace a human interaction—we see this a lot in self-service, especially in the case of straightforward, focused inquiries. Tools can typically free the employee to do something less transactional, more valuable to the customer, and more "human." However, with cognitive assistants, the capabilities are more powerful and therefore more nuanced. Generally, the use cases we've seen are about making employees, whether contact center representatives, IT service desk staff, or human resources officers more efficient and effective; often that means that the bot is working side-by-side with the employee as an assistant, synthesizing and presenting data, aimed at making their lives easier and processes more intelligent and agile.

- **Front-office deployments are common, but their AI implementations are not as mature as examples often found in HR, finance and accounting, and help desks.** The majority of case studies we saw in this research involved the front office, particularly in sales and customer service. These are often the starting points or the low hanging fruits where enterprises will decide to test the use of cognitive assistants. But the capabilities for cognitive assistants go well beyond the front office, assisting in various elements of the enterprise such as HR, finance and accounting, and the help desk. While the front-office examples are ubiquitous, more mature use cases are often found in other areas where cognitive assistants can execute on processes such as ordering equipment for an employee during onboarding or creating and resolving a help desk ticket autonomously.

Executive summary (page 2 of 2)

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- **Partnerships are essential building blocks for cognitive assistants. Many of the service providers in this study cited a "unique" approach with "best-in-breed" technology providers.** The reality is that the technology is advancing so rapidly that there's really no such thing as best-in-breed, and having a partner ecosystem is hardly unique. Those leading in this market will develop strong relationships with well-known players (e.g., IBM Watson, IPsoft's Amelia, Nuance for NLP), which is essential to have a flexible client-friendly environment—but will keep a keen eye on up-and-comers. Integration with other systems (e.g., ServiceNow for ticketing, HCM platforms for recruitment and onboarding, or CRM systems for customer data) is also important. Almost all of the service providers we spoke to have a technology-agnostic platform (perhaps with the exception of IBM, which partners but leverages the Watson platform heavily), which enables them to leverage their clients' existing investments and be flexible to clients' needs and modular with building the tools.

- **Pure-play contact center BPO companies are less mature but have tremendous potential to move up the value chain.** The contact center BPO companies (Convergys, Sitel, and Teleperformance) we profiled had less mature capabilities and fewer actual client case studies; two reasons are that contact center BPO companies are finding that it is difficult to fit cognitive assistants into their bread-and-butter business and that automating customer interactions brings with it revenue cannibalization. However, for front office use cases there is a tremendous opportunity for these players to take the lead given their wealth of customer data and customer experience expertise. By embracing cognitive assistants, these service providers have the opportunity to carve out a differentiated capability for a blended bot and human model, providing seamless transitions to human agents and harnessing the power of their core capability—while potentially breaking out of the legacy FTE models that have dampened innovation and profitability for years. Two ripe areas for further developing cognitive assistants for contact center companies are in use cases that employ bots internally for recruiting and hiring and those that augment agents. Companies that use these tools internally to their best advantage will create differentiation in their service delivery.

HFS Top 10 cognitive assistant service providers

Research methodology: Cognitive assistant service providers were assessed on three main dimensions

Assessment dimensions	Sub-dimensions	Weighting
Ability to execute	• Cognitive assistants in production • Partner ecosystem • Delivery breadth (channel, language, process, verticalization)	33.3%
Innovation capability	• Consulting and design capability • Vision and roadmap • Focus on business outcomes	33.3%
Voice of the customer	• Client reference ability, quality of client reference, case studies presented and quality of case studies	33.3%

This Top 10 research is based on interviews with 300 enterprise clients of IT services from the Global 2000 in which we asked specific questions pertaining to innovation and execution performance of service providers assessed. The research is augmented with information collected in Q1 and Q2 2018 through provider RFIs, structured briefings, client reference interviews, and from publicly available information sources.

HFS Top 10 cognitive assistant service providers

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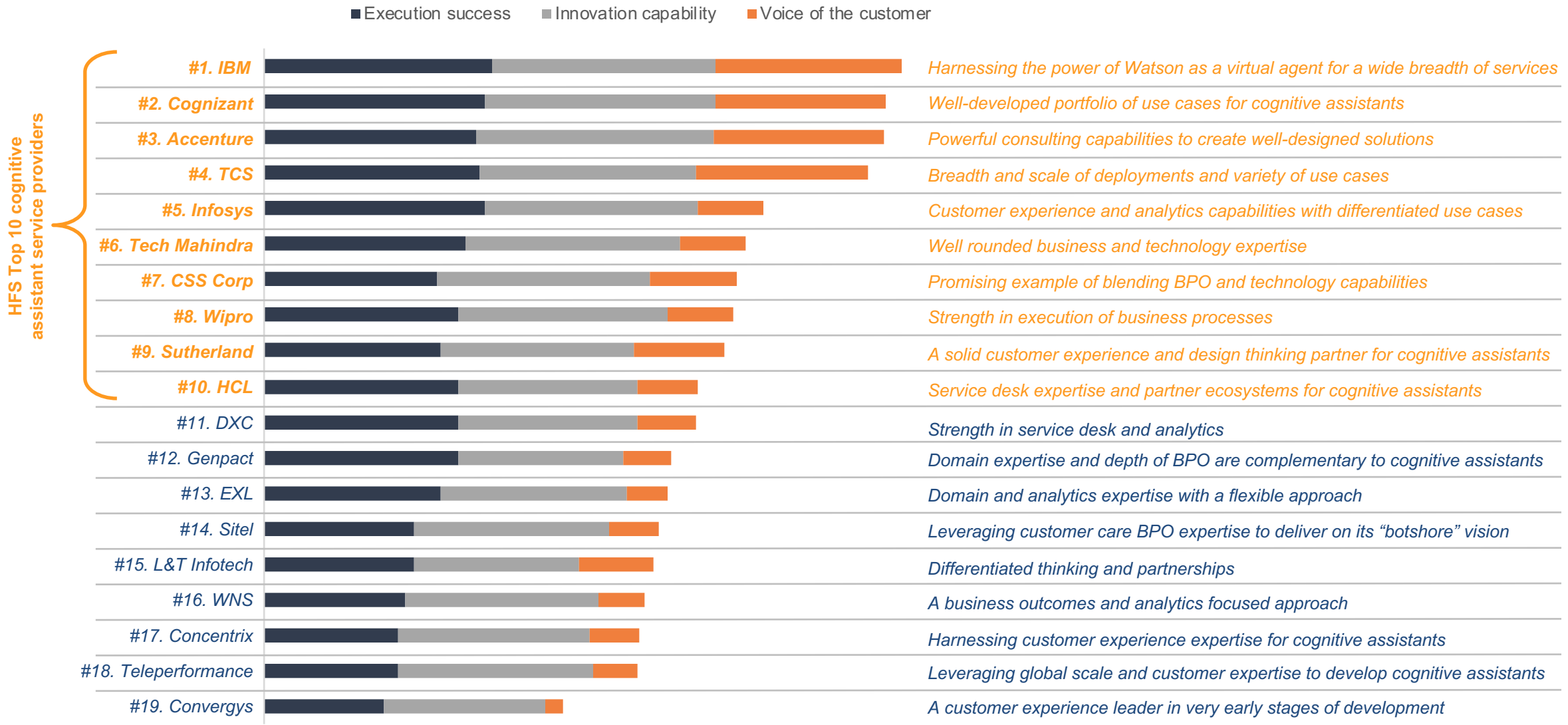

Source: HFS Research 2018

HFS top five cognitive assistant service providers by individual assessment dimensions

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HFS Ranking	Ability to execute			Innovation capability			Voice of the customer
	Cognitive assistants in production	Partner ecosystem	Delivery breadth (channel, language, process verticalization)	Consulting and design	Vision and roadmap	Focus on business outcomes	
#1	IBM	Cognizant	IBM	accenture	Cognizant	IBM	IBM
#2	Cognizant	accenture	Cognizant	Cognizant	accenture	Cognizant	TATA CONSULTANCY SERVICES
#3	accenture	TATA CONSULTANCY SERVICES	accenture	IBM	IBM	accenture	accenture
#4	TATA CONSULTANCY SERVICES	Tech Mahindra	TATA CONSULTANCY SERVICES	TATA CONSULTANCY SERVICES	TATA CONSULTANCY SERVICES	TATA CONSULTANCY SERVICES	Cognizant
#5	Infosys	HCL	Infosys	Infosys	CSS CORP	Infosys	SUTHERLAND

Service provider profiles

IBM: Harnessing the power of Watson as a virtual agent for a wide breadth of services

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Dimension	Rank
HFS Top 10 position	**#1**
Execution success	
Cognitive assistants in production	#1
Partner ecosystem	#6
Delivery breadth	#1
Innovation capability	
Consulting and design	#3
Vision and roadmap	#3
Focus on business outcomes	#1
Voice of the customer	#1

Strengths

- IBM's significant investments in Watson and the strategic importance of AI and cognitive to IBM put the firm at the top of our cognitive assistant service providers Top 10 list.
- IBM demonstrated the greatest volume and depth of cognitive assistant use cases across industry verticals and enterprise processes.
- One of IBM's greatest strengths for cognitive assistants is the Watson brand as a market-leading cognitive tool and virtual agent.
- There is a wide breadth of deployment possibilities for cognitive assistants across its enterprise services.
- IBM's focus outside of the front office allows for more sophisticated cognitive assistant deployments.

Development opportunities

- Communicating the cognitive assistant services' value proposition to the market amid such a massive service and product offering is a challenge for IBM.
- IBM has less potential for leveraging ecosystem tools because it is somewhat limited to the Watson platform and is, therefore, more vulnerable to disruptors.
- Honing the Watson value proposition messaging for cognitive assistants in distinct use cases and industries has been a challenge, but it is also a huge opportunity for IBM to move up in thought leadership.

Key clients and go-to-market approach

- Key clients: Online retailers, various automotive manufacturers, major telecommunications companies, financial services companies and banks, and healthcare payers and providers.

- IBM is taking its Watson Assistant to market across industries for customer care, customer sales support, and employee experience (HR, IT help), leveraging everything associated with Watson Assistant—inclusive of NLU, conversation, and analytics. IBM is also using Watson Discovery Services for Cognitive Assistant, helping employees find the right information when they need it.

Client case study highlights

- Gwyn, a Watson-powered concierge bot, is providing customers with personalized recommendations for an online retailer on social media messaging, resulting in increased revenue.
- TOBi, a Watson bot, is handling 70% of device troubleshooting, usage, and order tracking inquiries, and is delivering a significant cost per contact reduction for a major European telco.
- A major bank with 20,000 branch employees is using a Watson bot to help analyze customer emails and provide information on products and services to recommend to customers.

Cognizant: Strength in thought leadership and a well developed portfolio across use cases for cognitive assistants

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Dimension	Rank
HFS Top 10 position	**#2**
Execution success	
Cognitive assistants in production	#2
Partner ecosystem	#1
Delivery breadth	#2
Innovation capability	
Consulting and design	#2
Vision and roadmap	#1
Focus on business outcomes	#2
Voice of the customer	#4

Strengths

- Cognizant is leveraging its recent investments and acquisitions in the social sciences and experience design such as RED Associates, Mirabeau, and IdeaCouture for developing its vision for cognitive assistants.
- The firm has a practical approach toward building reusable components that it can replicate across industries and processes.
- It boasts one of the most extensive portfolios of examples and case studies.

Development opportunities

- Cognizant's messaging and case study illustrations are heavily leaning toward the front office and customer care use cases, leaving more to be desired for other processes such as service desk and HR.
- It is developing a more balanced narrative that showcases how other enterprise processes that can support the customer-centric organization would make for a more well-rounded portfolio of services across the Digital OneOffice value proposition.

Key clients and go-to-market approach

- Key clients include an insurance company, a major bank, a car manufacturer, a quick serve restaurant, and a multinational manufacturer.
- Cognizant's services for cognitive assistants can be broken up into the three major buckets of advisory, production deployments, and managed services. Cognizant has developed this cognitive assistant capability under its "Conversational AI" go-to-market practice aimed at transforming customer care with "AI-powered bots." Cognizant has tier-1 partnerships with Google, Amazon, Microsoft, and IBM.

Client case study highlights

- One of the best-developed examples is Cognizant's Intelligent Mortgage Advisor, in which the cognitive assistant can gather information to begin the mortgage application process, to assist customers with questions about the application process, and to provide updates on the status of the mortgage application. This service is integrated with several channels, including chat across various devices, and some aspects of this capability have been developed for Amazon Alexa, Google Home, connected cars, and wearables.

- In a pilot for a quick serve restaurant drive-through process, Cognizant is using a cognitive assistant to enable personalized cross-selling and up-selling to customers making and picking up orders. Cognizant is building a prototype for a menu interface that shows items based on the individual customer's buying behaviors, uses voice recognition to take the order, confirms the order, and then transfers it to the kitchen management system for delivery.

Accenture: Powerful consulting capabilities to create well-designed cognitive assistant solutions

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#3**
Execution success	
Cognitive assistants in production	#3
Partner ecosystem	#2
Delivery breadth	#3
Innovation capability	
Consulting and design	#1
Vision and roadmap	#2
Focus on business outcomes	#3
Voice of the customer	#3

Strengths

- Accenture has solid verticalized case studies and a strong partner ecosystem for cognitive assistants.
- Accenture's greatest strength is its consulting capabilities for design and change management for cognitive assistant services.
- Accenture has a proprietary platform connected to open source and third-party cognitive agent capabilities that allow for picking and choosing the best tools and features for each use case, demonstrating a flexible approach.
- Accenture demonstrated promising aspirational pilots, particularly in the voice-to-voice agent space and offering multi-channel virtual assistants including in vehicle and retail environments.
- The combination of BPO, consulting, and tech capability allows for implementation and ongoing management of cognitive assistants plus ongoing training.

Development opportunities

- Accenture sees the greatest demand and uptake in the contact center. While it makes sense to pursue these endeavors, Accenture will also need to increase emphasis on case studies in the back and middle offices, where cognitive agent capabilities are more mature and there is less focus on cost savings and handle-time reduction.
- The capability and vision are above par, but some of the case study examples are too heavily focused on the cost savings elements.

Key clients and go-to-market approach

- Key clients include Verizon, Avianca Airlines, Al-Rahji Bank, and the National Blind Association of India.
- Accenture has taken a technology-agnostic approach to delivering cognitive assistants, harnessing a wide breadth of partner capabilities and Accenture IP to offer a modular access for clients to choose front-end channels (e.g., voice, messaging, chat, and social) and cognitive services (e.g., natural language processing, voice-to-text, text-to-voice, and sentiment analysis).

Client case study highlights

- Using IBM Watson and Nuance, Accenture deployed a cognitive agent that provided analysis and automatic responses to customer inquiries, documenting and understanding concepts using semantic analysis and machine learning algorithms and supports users' decision making by offering predictive responses. This engagement resulted in an 85% increase in user satisfaction scores, an 82% reduction in handling time of tickets over voice, instant message, and email, and a 40% risk reduction and automation of decision-making processes.
- Collette is a virtual agent platform originally based on Watson and built to deliver mortgage advice. Accenture updated it to be hosted on Converse, a technology-agnostic platform.
- Accenture is leveraging advanced analytics and Google Cloud technology to re-imagine the customer service experience for Verizon to resolve customer issues faster while reducing costs.
- Rhea is a "robotic humanoid expert assistant" that uses natural language processing and machine learning. It was built on open-source technology and designed for testing and application management use cases.
- Cathy is a cognitive agent built on the Microsoft Bot Framework and integrated with Facebook and Twitter with a pre-built corpus for insurance use cases.

TCS: Breadth and scale of deployments and variety of use cases

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#4**
Execution success	
Cognitive assistants in production	#4
Partner ecosystem	#3
Delivery breadth	#4
Innovation capability	
Consulting and design	#4
Vision and roadmap	#4
Focus on business outcomes	#4
Voice of the customer	#2

Strengths

- One of TCS' greatest strengths is its capability to assist clients in developing a COE of automation, which fits well with its cognitive assistant services.
- TCS displayed a significant depth and scale of deployments of cognitive assistants and a variety of use cases across various enterprise processes and functions, in several verticals.
- TCS is leveraging proprietary assets such as Knadia for intelligent conversational assistants, which enables contextual intelligence and natural language understanding and Gnome.
- TCS uses an "HR Policy Bot" internally to answer employee questions, demonstrating its confidence in the tools it has developed for clients.

Development opportunities

- To compete with the top three service providers in the cognitive assistant market, TCS could make greater investments in marketing and thought leadership specific to the conversational intelligence strategy and AI capability.
- TCS would fare well with developing a stronger design thinking approach for cognitive assistants, where journey mapping and the like is a big element of designing the customer/employee experience and blending physical and digital channels.

Key clients and go-to-market approach

- Key clients include a medical device company, a European bank, a multinational retail company, and a life sciences company.
- TCS' go-to-market strategy is around its "Machine First" mantra, which touts first using robotics, machine learning, and AI heavily in its services engagements across business process, IT operations, and applications services. TCS' offerings for cognitive assistants span the contact center, IT operations, finance and accounting, contract management, and other middle office operations and processes.

Client case study highlights

- For a medical device company, TCS implemented a cognitive assistant that integrates with Skype for business to enable employees to "ask an expert" to troubleshoot IT issues. This automatically logs and resolves tickets and has enabled faster issue resolution.
- TCS developed "Pacey Miles," a cognitive assistant in the form of an animated character for the New York City Marathon, designed to answer common questions. Developed using the Microsoft bot framework, Pacey leveraged APIs to collect external data like events calendars, weather, and runner information.

Infosys: A blend of customer experience expertise and analytics capabilities with some very distinct and differentiated use cases

TOP 10

Dimension	Rank
HFS Top 10 position	**#5**
Execution success	
Cognitive assistants in production	#5
Partner ecosystem	#7
Delivery breadth	#5
Innovation capability	
Consulting and design	#5
Vision and roadmap	#6
Focus on business outcomes	#5
Voice of the customer	#8

Strengths

- Infosys has deployed cognitive assistants in engagements across several languages, not using English as a base.
- Infosys has a good breadth of deployments in finance, HR, help desk and customer service.
- Infosys has more than 200,000 internal employees using its cognitive assistant platform.
- Infosys brings a blend of customer experience expertise and analytics capabilities, along with some very distinct and differentiated use cases that make the service provider a strong option to consider for cognitive agent services.

Development opportunities

- The Infosys Nia platform is a good backbone for cognitive assistant services, but it could use some development to further embody the various elements of true cognitive assistants.
- Use cases to date are heavily dependent on the chat and messenger platforms. Infosys could further develop its capability and thought leadership in other channels.

Key clients and go-to-market approach

- Key clients include a large financial services company and telecom companies.
- Infosys has centered its cognitive assistant offering around a platform called Nia. Infosys Nia allows enterprises to create and deploy conversational interfaces in production. The conversation interface and chatbot platform are built on top of open source components such as OpenNLP for natural language processing, the Max Entropy Classifier, and Google's Tensor Flow Deep Learning algorithm. Infosys has partnered with various academic and industry partners for various elements of the AI and ML capabilities. Nia can be deployed on a wide variety of messaging platforms, mobile apps, wearable devices, smart speakers (such as Amazon Alexa and Google Home), and on web interfaces.
- The Nia Conversational Interface platform has a Bot Studio that allows business and technical users to train, test, and deploy chatbots into production. The use of active learning allows the chatbot to learn from interactions and update its knowledge base, thus getting better over time.

Client case study highlights

- A large financial services company greatly improved vendor satisfaction and reduced cost by automating its first-level vendor support with the deployment of a chat assistant on its vendor management portal. The chatbot integrated with the enterprise databases and utilized natural language processing techniques to respond to vendor queries with accurate information.
- A telecom company was able to improve customer satisfaction and reduce costs with the deployment of a chat assistant built on Infosys Nia. The chatbot utilized natural language processing techniques and resolved queries based on a predefined set of actions specified by the telecom organization.
- A leading telecom company increased CSAT by deploying a chat assistant to automate responses to common user queries and automate customer service requests. The chatbot integrated with Infosys Nia Data to analyze customer's historical data and deliver insights to the customer.

Tech Mahindra: A well rounded cognitive assistant service provider with technology and business expertise

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#6**
Execution success	
Cognitive assistants in production	#6
Partner ecosystem	#4
Delivery breadth	#6
Innovation capability	
Consulting and design	#8
Vision and roadmap	#7
Focus on business outcomes	#6
Voice of the customer	#9

Strengths

- Tech Mahindra takes a customer experience focus through its proprietary Carexa for contact center and customer experience transformation: CareXa is Tech Mahindra's flagship consulting-led modular framework for customer experience enhancement that bundles multiple platform solutions across channels, analytics, and intelligent automation (RPA and AI driven solutions).
- Tech Mahindra demonstrated a wide breadth of use cases across enterprise operations and industry case studies.
- Tech Mahindra's design thinking approach to cognitive assistants focuses on elements such as empathy, research, testing, and evaluating prototypes, an important piece of CX.
- The firm has developed cognitive assistants TiBoT and UVO to support its internal HR and IT service delivery and management.

Development opportunities

- Tech Mahindra has a solid customer experience practice and genuine technology expertise, but could further develop its industry-focused messaging; clear messaging around some verticals could help Tech Mahindra attract new clients.
- Next steps for Tech Mahindra should include developing voice integration and enabling cognitive assistants for Alexa, Google Assistant, and similar outlets.

Key clients and go-to-market approach

- Key clients include a European broadband service provider, a Thai theme park, an Australian telco, a Philippines telco, a leading North American diversified financial services firm, and a large UK telco.
- Tech Mahindra has a central team, the Center for Automation Technologies, which drives TechM's automation and AI strategy, COEs, partnerships, and IP/platform development initiatives and provides training and enablement support for all its engagements and service lines. Tech Mahindra's capabilities around cognitive agents include the development of custom solutions and deployments based on its Cognitive Virtual Agent Framework (CVAF) as well as through a platform-based approach to chatbot implementation, which their in-house platform Entellio enables. Tech Mahindra also partners with IBM Watson, Microsoft, Google, Avaamo, and Creative Virtual to deliver cognitive virtual assistant services.

Client case study highlights

- Tech Mahindra developed an enterprise virtual assistant for a leading European broadband service provider to manage its IT help desk. Designed using IBM Watson NLP capabilities and Microsoft bot framework as middleware, the virtual agent works through the customer's Skype for Business to provide a direct chat interface to employees to available IT services. With this virtual agent, the customer was able to roll out a 24/7 IT help desk service that employees can use to access FAQs, reset passwords, order computer spare parts, and place telephone requests. The virtual agent also enabled employees to seek clarification on important business applications such as Fusion and Office365, which improved the adoption and usage of the customer's critical applications and enabled better utilization of IT personnel for higher tasks while improving employee satisfaction.

CSS Corp: Promising example of the power of bringing together technology prowess and BPO expertise

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#7**
Execution success	
Cognitive assistants in production	#8
Partner ecosystem	#8
Delivery breadth	#7
Innovation capability	
Consulting and design	#9
Vision and roadmap	#5
Focus on business outcomes	#8
Voice of the customer	#6

Strengths

- CSS Corp showed a variety of cognitive assistant deployments across various use cases in the enterprise (front, middle, and back office) and a variety of channels (social messaging, mobile, voice virtual assistant). Many of its peers have yet to develop cognitive assistants in the voice channel.
- CSS Corp demonstrates a greater depth and expertise than many competitors in cognitive assistant capabilities that have an impact on business results outside of cost savings, such as improvement in content discovery for marketing and creating new revenue streams.
- Developing and articulating the messaging of a proprietary tool like Yodaa demonstrates thought leadership and initiative in the cognitive assistant space.
- Since Yodaa's debut in 2017, CSS Corp's client adoption of the service has grown significantly.

Development opportunities

- One potential pitfall with CSS Corp putting all its eggs in the Yodaa basket is a risk of being pigeonholed into one capability perception, whether by process or industry. CSS Corp may want to consider expanding its messaging whether by vertical (e.g., Yodaa for logistics) or by carving out some other discrete offering to delineate between functions as some of its competitors have done.
- CSS could further develop its partner ecosystem to ensure the capability is staying on top of emerging tech and trends.

Key clients and go-to-market approach

- Key clients include a Bay area-based networking company, an international tire company, a networking company, and a cosmetics retailer.
- CSS Corp has gone all-in with one context-driven AI platform for customer engagement with its Yodaa smart agent. Combining NLP and machine learning, the SaaS-based solution can be used as a standalone support interface across contact center channels or as a platform integrated with Amazon Echo, Apple Siri, Microsoft Cortana, or similar service. CSS Corp is pursuing a vision for the Yodaa smart agent to move up the value chain from automated to a future autonomous state, which includes self-remediation and self-optimization for the conversational service.

Client case study highlights

- CSS Corp deployed Yodaa for a cosmetics company with the goals of better engaging customers, increasing sales, and adding a new channel for sales. Yodaa uses natural language processing, image recognition, mobile, and a voice engine (Alexa) to recommend personalized offers to customers, resulting in improvements in CX and content discovery.
- For a tire manufacturer client, CSS Corp deployed Yodaa to allow for customers to more quickly and efficiently schedule appointments. Yodaa integrated with the client's scheduling systems and used voice-based cognitive assistant capabilities including natural language processing, ultimately improving the cycle time to book and confirm an appointment by 50%.

Wipro: A well developed ecosystem and cognitive assistant capability built on HOLMES

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Dimension	Rank
HFS Top 10 position	**#8**
Execution success	
Cognitive assistants in production	#7
Partner ecosystem	#9
Delivery breadth	#9
Innovation capability	
Consulting and design	#7
Vision and roadmap	#8
Focus on business outcomes	#7
Voice of the customer	#10

Strengths

- Wipro is relying on HOLMES as a building block for its cognitive assistant capability. HOLMES' NLP and learning capabilities comprise the backbone that has enabled Wipro's cognitive assistants to develop beyond simple conversations. HOLMES Chat, for example, is an AI platform that can converse like a human and execute business functions. It integrates with messaging and chat channels like Skype, Messenger, and Spark as well as enterprise IT systems such as SAP and JDE in the back end.
- Wipro's automation ecosystem is well developed, including Avaamo for bot development.

Development opportunities

- Wipro can further develop its marketing presence around cognitive assistants and better educate clients and prospects about the potential for cognitive assistants with HOLMES.
- Wipro's case studies lean toward the IT services side, which is a strength, but Wipro could also leverage its front-office expertise, which is a lesser known capability to bring this to light for customer engagement services customers and move up the value chain in those engagements.
- Next steps for Wipro will likely include the development of cognitive assistants within voice channels.

Key clients and go-to-market approach

- Key clients include an Indian bank, a US bank, a US telecom, and a networking customer.
- Wipro's Cognitive Agent capabilities leverage its internal abilities from Wipro HOLMES and Wipro Imagine. Wipro also uses its automation ecosystem (strategic partnerships with key AI providers) to ensure cross-leverage of skills and capabilities to enable speed to value for clients. For example, Avaamo, an investment from the $100 million Wipro Ventures fund, is an important partner. A conversational engine and cognitive search are key frameworks of the Wipro HOLMES artificial intelligence platform, and the cognitive assistant capabilities are enhanced by Avaamo's AI-driven enterprise bot platform.

Client case study highlights

- Wipro deployed HOLMES chat as a piece of a solution for a leading banking customer to use in its IT environment, where administrators want to issue data-center commands and troubleshoot servers. HOLMES enabled a quick alert management service, which sped up issue resolution for the admins.
- Wipro has used HOLMES chat capability within engagements for both a biopharma and a financial services customer engagement for resolution of common IT issues, resulting in a reduction of monthly IT tickets.

Sutherland: A solid customer experience and design thinking partner for cognitive assistants

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#9**
Execution success	
Cognitive assistants in production	#11
Partner ecosystem	#13
Delivery breadth	#13
Innovation capability	
Consulting and design	#6
Vision and roadmap	#11
Focus on business outcomes	#11
Voice of the customer	#5

Strengths

- Sutherland's journey mapping and design labs combined with its customer experience expertise have won the service provider cognitive agent engagements.
- Sutherland has active production deployments for several global enterprises; these cognitive assistants are serving over 4 million conversations per month.
- Sutherland is using HR bots internally for "cognitive recruiting"—this integrates with Taleo for HCM.
- Sutherland is ahead of its pure-play BPO peers far as engagements in production and sophistication of solutions.

Development opportunities

- Sutherland has some strategic partnerships (e.g., Google) but should consider other important partnerships, such as IBM Watson.
- Sutherland is behind some of its competitors on voice integration, which is currently in the pilot phase; it is working on a project with an IT help desk voice with Alexa.
- Sutherland's cognitive assistant offering is small but has some interesting value propositions.

Key clients and go-to-market approach

- Key clients include a large US Mobile telecom and cable provider, a multinational software and hardware technology corporation, and a multinational media and entertainment company
- Sutherland has a platform called Chatbots and Digital Assistants, which enables NLU and voice recognition experiences and business processes in any channel. It is used to create Sutherland chatbots for support, employee, or B2B transactional processes. This platform also contains a set of micro-services to perform artificial intelligence techniques, such as sentiment analysis, predictive response, and confidence scoring of user intents.

Client case study highlights

- For Sony PlayStation, Sutherland provided NLU-based support and personalized recommendations to millions of streaming service customers, resulting in a 22% reduction in live contact center volume after 120 days in production.
- For a large US mobile telecom and cable provider, Sutherland mined millions of voice and chat support interactions to score agent performance and train agents to resolve customer issues more effectively, resulting in a 25% improvement in CSAT scores and a 60% improvement in agent retention.

DXC: Service desk and analytics are the cornerstones of the cognitive assistant capability

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#10**
Execution success	
Cognitive assistants in production	#10
Partner ecosystem	#12
Delivery breadth	#8
Innovation capability	
Consulting and design	#11
Vision and roadmap	#10
Focus on business outcomes	#10
Voice of the customer	#11

Strengths

- DXC has a wider breadth of deployments across the enterprise than many of its competitors that have a front-office focus.
- One of the key strengths of its core services is in help desk operations. DXC is building a global solution for virtual agents to apply them to their service desk environment, bringing them to client environments as a framework with built-in integrations, allowing scale through a modular architecture that then connects to client environments from different areas.

Development opportunities

- DXC's cognitive assistants mainly focus on simple rules-based programming, whereas several of its peers have taken these capabilities further along the spectrum of service agents. DXC is currently working on deploying "Alfred" for its service desk capability, which uses natural language processing and sentiment analysis to have a conversational interface with users.
- DXC's use cases focus primarily on headcount reduction and deflection rates, but there is a potential to move up the value chain for more material impact outside of cost reduction.

Key clients and go-to-market approach

- Key clients were not named.
- DXC has built its virtual agents solution on the back of its bionics platform, a portfolio of AI, automation, and analytics solutions that is modular for client engagements. DXC has been working extensively to create industry-specific chatbots. For service desks, DXC has built an AI framework based on micro-services, allowing the modularity of integrating different partners and technologies for different purposes. Today, this framework integrates Skype for Business (Microsoft technology) with ServiceNow, with IBM Bluemix, with Avaya AIC chat (ServiceNow Chat), and with device monitoring software for proactive support flows. The micro-services allows DXC to integrate other partners and technologies as it continues to develop more AI use cases, like automated translation, voice integration, or pattern recognition.

Client case study highlights

- DXC has deployed "Athena" as a digital agent for a client's service desk. Athena has allowed the client to reduce the support agents employed by approximately 30%, resulting in significant savings (millions of dollars) over the life of the contract. The digital agent is currently handling 185,000 interactions a month. The benefit for callers is significant, too, as first-contact resolution rate for these call types increased from 35% to 80% over an eight-month period. Interactions are escalated to live chat or agents as necessary. Agents are also utilizing the self-serve and referral documents to resolve interactions. Chat logs are integrated and move interaction history with the caller. Deployment reduced human agents by over 30%, and chat agents are now handling chats at a 4:1 ratio. Other initiatives in the pilot phase are expected to yield 30% call deflection rates in consumer travel, consumer cards, and at the service desk.

HCL: Service desk expertise and partner ecosystems for cognitive assistants

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#11**
Execution success	
Cognitive assistants in production	#9
Partner ecosystem	#5
Delivery breadth	#12
Innovation capability	
Consulting and design	#10
Vision and roadmap	#9
Focus on business outcomes	#9
Voice of the customer	#12

Strengths

- The DryICE platform is a backbone for cognitive assistants, and Lucy provides a very flexible and agile engagement model to tailor services to individual client needs.
- HCL has solid service desk expertise with cognitive assistants.
- DRYiCE Lucy is fully enabled for as-a-service consumption through HCL's proprietary MTaaS offering, giving customers a fully managed, plug-and-play, pay-as-you-go cognitive agent.

Development opportunities

- HCL has only deployed cognitive assistants in English. HCL is in the process of implementing support for multiple languages including French, German, Spanish, Chinese, and Japanese.
- HCL will take on the challenge of leveraging Lucy for front-office engagements.

Key clients and go-to-market approach

- Key clients include a telco, a global bank, a leading CPG firm, and a Fortune 500 manufacturing company.
- HCL's approach to cognitive assistants focuses on a proprietary platform named Lucy. Lucy leverages design principles of deep automation and process transformation based on Watson and IBM Cloud Services. Lucy utilizes common natural language processing engines that use machine learning for online learning. DRYiCE's Lucy agent is fully integrated with Pepper, a physical robot from Softbank robotics. With this integration, HCL brings the complete virtual cognitive agent capabilities integrated into an action engine in use cases way beyond just front-office scope.
- DRYiCE Lucy is also fully integrated and is a key component of HCL's proprietary, cloud-native service management platform, XSM. XSM enables client users to seek help on subscribed services, perform actions, and find answers to questions in a unified, conversational way.

Client case study highlights

- Due to a rapidly changing application landscape and growing contact volume, an HCL customer was faced with adverse service desk performance coupled with inconsistent end-user experience. End users had to interface with multiple applications to get relevant information, resulting in increased complexity and effort. Slow resolution times for a high volume of low-priority tickets also impacted the service desk's response efficiency. HCL implemented Lucy to support the growing user base while controlling costs and enhancing user experience. It targeted three different business functions—IT service desk, HR, and order management. HCL built robust integrations with over 10 enterprise systems, which helped it to extend support to more than 115,000 end users handling north of 650,000 contacts annually. Implementation of this scale resulted in direct cost savings and improved mean time to repair and feedback in IT by 40% for identified use cases.

Genpact: Domain expertise and depth of BPO are complementary to cognitive assistants

Dimension	Rank
HFS Top 10 position	**#12**
Execution success	
Cognitive assistants in production	#13
Partner ecosystem	#14
Delivery breadth	#10
Innovation capability	
Consulting and design	#12
Vision and roadmap	#14
Focus on business outcomes	#13
Voice of the customer	#15

Strengths

- Genpact's domain expertise and depth of BPO prowess are complementary capabilities and have helped Genpact win business in the cognitive assistant space due to the solid customer engagements that exist in its core business.
- The background of the Cora platform and Genpact's analytics strength lend well to cognitive agent services.
- Genpact's customer experience expertise and consulting capability are emerging in particular through its TandemSeven acquisition.

Development opportunities

- Genpact's core expertise is around the back and middle office rather than the front, but it is working toward cultivating customer experience expertise with recent solution offerings and acquisitions.

Key clients and go-to-market approach

- Key clients include an entertainment and media company.
- Genpact's cognitive assistant is a part of the Cora AI stack, where it leverages the technologies include Machine Learning, Computational Linguistics, select components from conversational AI platform providers, combined with modular workflow, data engineering, and re-usable domain expertise that Genpact has experienced through the years and Genpact's smart analytics to deliver on customer experience. Genpact provides productized services through Genpact's Conversational AI CoE, for deploying cognitive assistants. Genpact is focused on solving end-to-end business problems, which not only includes replacing tasks with cognitive agents but also involves reimagining the complete customer journey and business process using Cora Journey360.

- For deploying cognitive agents, Genpact built a reference architecture called Cora Conversational AI Reference Architecture, which is supported by pre-built APIs, micro-services, reusable knowledge graphs and process frameworks from a technology perspective, smart analytics, and prebuilt domain corpus that enables quick deployment and training along with seamless integration with back-end services.

Client case study highlights

- For a large entertainment company, Genpact deployed a cognitive chat agent solution. It started by ingesting over five-million records of customer web chats for machine learning. It trained client-specific models to classify the queries to understand why the customer was contacting the company, for example, a query on a particular entertainment package or rental charges. The solution then parses and interprets the chat content using computational linguistics and context to understand how the conversation is progressing, such as tone, sentiment, and specifics of the conversation. Models are trained based on previous successful customer conversations and offerings data (new revenue, up-sell, or cross-sell) to propose the best response to the customer agent. This allowed for proactive recommendations personalized to each customer. As a result, the entertainment company saw a 10% improvement in new web channel revenue (including up-sell and cross-sell opportunities).

EXL: Domain and analytics expertise with a flexible approach

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#13**
Execution success	
Cognitive assistants in production	#12
Partner ecosystem	#9
Delivery breadth	#15
Innovation capability	
Consulting and design	#14
Vision and roadmap	#12
Focus on business outcomes	#12
Voice of the customer	#18

Strengths

- EXL has combined domain expertise in BFSI, insurance, travel transport and logistics, utilities, and healthcare. Its analytics prowess can further push the adoption of its cognitive assistant offering.
- EXL's strength in analytics lends itself well to the data integration and analysis components of cognitive assistants.
- EXL has taken a flexible approach to client engagements for cognitive assistants, which is well supported by its partner ecosystem.

Development opportunities

- EXL's deployments exist mainly across voice, chat, and web—a limited social channel distribution in comparison to some of its peers. Engagements are focused primarily on chat, IVR, and Skype for Business, but can extend to other channels.

Key clients and go-to-market approach

- Key clients include multiple clients across insurance, healthcare, utilities, and BFSI.
- EXL has established significant partnerships and self-service offerings using virtual assistants with AI, NLP, and ML combined with omni-channel solutions. EXL's cognitive assistants are built on Google's Tensor Flow Machine learning framework with a neural network model for cognitive conversational AI. This CVA (cognitive virtual agent) also has omni-channel interfaces like voice, chat, email, SMS, social messenger, enterprise messengers, IoT devices like Alexa, Google Home, and Google Assistant, which makes it very flexible and intuitive. It is applicable across various domains in B2B and B2C. EXL has also developed a digital intuitive virtual assistant (DIVA) with embedded functionality for customer profiling, predictive analytics, assisted processing guidance, and contextual knowledge aggregation that empowers human agents in personized customer experience with implementations in BFSI, TTL, and insurance verticals. It is now being replicated across business units and verticals.

Client case study highlights

- A utilities company is using an EXL cognitive assistant to streamline and enhance its field agent operations where its field agents visiting its customer sites can update their availability status and get required customer information for speedy customer issue resolutions. The CVA provides an option for callers to use voice or text to communicate with CVA and resolve or self-serve inquiries related to billing and payments, automated task assignments, and similar tasks. This engagement led to a 30% efficiency gain through self-service adoption, a 10%-12% reduction in cycle time, and a 10% improvement in CSAT.

Sitel Group: Leveraging customer care BPO expertise to deliver on its “botshore” vision

TOP 10

Dimension	Rank
HFS Top 10 position	**#14**
Execution success	
Cognitive assistants in production	#15
Partner ecosystem	#17
Delivery breadth	#14
Innovation capability	
Consulting and design	#17
Vision and roadmap	#15
Focus on business outcomes	#15
Voice of the customer	#15

Strengths

- Sitel’s expertise as a customer experience service provider to a global client base lends positions it well to deliver solutions that seamlessly integrate with existing overall customer experience efforts and assume accountability for providing support that works whether those solutions are automated, digital, or human.
- Sitel has a solid number of conversational services engagements compared to its contact center peers, but they are more heavily concentrated with its European clients.
- Sitel Group has an internal development studio comprised of designers, UX specialists, content developers, and developers with broad experience in the design, development, and optimization of custom automation solutions for clients. They build bots and work with third-party chatbot platforms in the development of its solutions.

Development opportunities

- The use cases currently in production tend to be simple and narrowly focused—chatbot-like. Sitel Group does have a roadmap and client pipeline to further develop its work and deliver more sophisticated AI-focused solutions.

Key clients and go-to-market approach

- Key clients include a top-tier European telecom company, multinational insurance firm, European gambling company, multinational oil and gas company, and an international gaming industry leader.
- Sitel Group has an established software development team and a consulting and digital customer experience agency. The majority of Sitel Group’s solutions fall under the “augmented agent” category and use a combination of scripted workflows and basic NLU on customer entries to either follow solution paths or contextually hand off a customer to a live agent.
- As part of this automation effort, Sitel Group has developed and is deploying a proprietary solution it calls the Novagile Bot Trainer. Integrated as an independent module in Novagile Platform, the Bot Trainer is a solution to train proprietary AI and NLU engines that help make automated solutions more accurate and effective. It can be deployed against any AI/NLU driven solution and leverages Sitel Group’s global agent population to qualify, correct, and add intents based on chat and voice transcripts.
- Sitel Group delivers these solutions in concert with its existing chat assistants in an overall solution set it calls “Botshore."

Client case study highlights

- A leading European utility wanted to open up a new channel for customer engagement with Facebook Messenger, specifically to design an experience that was appealing to millennials, resulting in more than 7,000 subscriptions since January of 2017. Sitel Group collected more than 1,500 pieces of customer feedback for analysis and insights and is developing a connection to back-office metrics.

L&T Infotech: Differentiated thinking and partnerships are the highlight of LTI's cognitive assistants services

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#15**
Execution success	
Cognitive assistants in production	#14
Partner ecosystem	#11
Delivery breadth	#11
Innovation capability	
Consulting and design	#15
Vision and roadmap	#16
Focus on business outcomes	#14
Voice of the customer	#7

Strengths

- The flexibility and agility that LTI offers with the Mosaic AI portfolio of partnerships are attractive for customization of cognitive assistant services.
- LTI demonstrates some differentiated thinking with its client engagements; one of the most differentiated case studies is an HR bot for a bank with a business outcome of growing the client's employee savings account.
- LTI has cognitive assistant-like chatbots for employee services like HR and IT support.

Development opportunities

- LTI will need to work further to demonstrate implementation of its vision for scaling AI and expanding its solution portfolio toward industrialized services where it is currently focused on project-centric requirements.
- LTI should work toward more streamlined messaging and thought leadership and invest in marketing, given its differentiated thinking.

Key clients and go-to-market approach

- Key clients include a British multinational bank, a Middle East oil and gas company, a government citizen tax authority, a media and entertainment company, and a large motor insurance company.
- Larsen & Toubro Infotech (LTI) has built its cognitive assistant services solution around the Mosaic AI cognitive platform, which is a portfolio of proprietary AI services and partnerships with some of the key players in the AI services, channel, and enterprise tech ecosystem. LTI uses a consultative and design thinking approach in its client engagements to build a holistic solution and ensure value realization leveraging Mosaic AI's flexibility and agility tailored to specific client requirements. LTI offers a set of focused assistants for different use cases addressing self-service as a catalog offering.

Client case study highlights

- LTI has deployed an HR bot along with a leading British multinational bank offering employee banking services around life events with focused campaigns, such as encouraging savings accounts for new members. LTI has also increased the effectiveness of the solution by capitalizing on positive reactions by pushing for referrals.
- LTI's NextGen Service Desk is a self-service chatbot with intelligent ticket classification, smart routing, and auto resolution.
- LTI has a solution for faster claim processing for motor insurance using cognitive assistants using conversations & image processing.

WNS: A business outcomes and analytics focused approach

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#16**
Execution success	
Cognitive assistants in production	#16
Partner ecosystem	#15
Delivery breadth	#16
Innovation capability	
Consulting and design	#18
Vision and roadmap	#17
Focus on business outcomes	#16
Voice of the customer	#16

Strengths

- WNS displayed the greatest strength in its travel case studies.
- WNS takes a holistic business outcomes-focused approach to cognitive assistants, including focus areas such as increased sales, reduced cart abandonment, and improvement of customer effort scores.
- WNS' analytics strengths lend well to the development of cognitive assistants solutions.
- WNS' excellent partnership approach to its client engagements and lends itself well to the development of cognitive assistants alongside its clients.

Development opportunities

- True customer engagement case conversational studies were few; several of the solutions presented had the components and characteristics of cognitive without the interaction capability that is the essence of the cognitive assistant.
- WNS should develop a stronger narrative around how the cognitive assistant capability fits into and complements its core services; the synergies with its analytics and customer care BPO offerings are a big opportunity for WNS to carve out a stronger message.

Key clients and go-to-market approach

- Key clients include an online travel agency, a utility company, and a manufacturer.
- WNS has a portfolio of cognitive solutions and tools for the development of digital virtual agents, predictive systems, cognitive process automation, knowledge virtualization, robotics, and drones. Among these is a "cognitive AI bot," developed through a mix of proprietary frameworks and partner tools.

Client case study highlights

- WNS provided proactive online support including next best action and recommendations to a travel client for reservations, resulting in an increase in online sales across multiple websites by 9.2% and improved website engagement.
- WNS implemented a social media customer service cognitive assistant for quick, automated, and customized engagement for another travel client; this engagement resulted in a reduction of negative sentiment customer conversations by 40% and a 25% increase in customer satisfaction.

Concentrix: Harnessing customer experience expertise for cognitive assistants

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#17**
Execution success	
Cognitive assistants in production	#17
Partner ecosystem	#16
Delivery breadth	#17
Innovation capability	
Consulting and design	#16
Vision and roadmap	#13
Focus on business outcomes	#17
Voice of the customer	#14

Strengths

- Concentrix is taking a smart "bite-sized" approach to conversational automation that resonates with its customer base, by starting with small and quick wins versus higher risk end-to-end transformation plays.
- From a customer service perspective, Concentrix has strong data analysis and knowledge of customer process operations; this will enable better application of and insights from bots to allow for a pivot to a human assistant with the context and the sentiment of the customer intact
- Concentrix' agile and flexible approach is key to how its core client base wants to consume and expand the use of these services.

Development opportunities

- Concentrix deployments are primarily limited to English-speaking use cases
- Concentrix has fewer pilots and deployments than some of the more well-rounded BPO and ITO service providers
- The use cases in production have a focus on automating quick hit lower value work and cost savings rather than focusing on more sophisticated opportunities.

Key clients and go-to-market approach

- Key clients: Large NA Retailer, large Indian Insurer, top NA Healthcare payers, HR and IT Service desks, large Indian Food Retailer, global Hospitality chain, large Online Retailer, Global Technology company, large Middle Eastern Bank, large Asian Airline, global Online Travel company
- Concentrix's in-house developed Cognitive Customer Engagement (CCE) Automation Framework is a platform-agnostic orchestration relying on partnerships with cognitive and AI providers to use this technology based on client-specific requirements along with current best-in-breed technology. The CCE framework is pre-integrated with AI and RPA engines including Amazon Alexa, IBM Watson, Google AI, Microsoft Luis, UiPath, and Automation Anywhere. Their focus is on enabling best-of-breed tools over time and allowing the right technology to be applied for the given need.

Client case study highlights

- Concentrix has a bot for a large insurer that analyzes the customer sentiment and emotion of email inquiries. The bot pulls relevant information from the client's enterprise systems (such as policy soft copy, premium, or due date) and forms a personalized response for the customer, incorporating customer sentiments and intents to provide the relevant response to the customer. The bot can either perform fully automated transactions or enable a human-assisted intelligent interaction. This bot helps to provide more personalized responses and handle volume peaks seamlessly. Adding the bot has proven to reduce turnaround time and to improve assistant productivity, allowing them to focus on more complex, value-added client interactions. This has reduced the insurer's total cost of operations by automating low-value work.
- Concentrix is currently deploying cognitive bots to handle IT monitoring for Concentrix' global IT infrastructure and chat, email, and voice bot capabilities for optimizing IT help desk-related customer service for its employees.

Teleperformance: In the early stages of leveraging global scale and customer expertise to develop cognitive assistants

TOP 10

Dimension	Rank
HFS Top 10 position	**#18**
Execution success	
Cognitive assistants in production	#18
Partner ecosystem	#18
Delivery breadth	#18
Innovation capability	
Consulting and design	#13
Vision and roadmap	#18
Focus on business outcomes	#18
Voice of the customer	#17

Strengths

- Teleperformance's customer experience expertise and excellence are clear strengths for this contact center giant, not just from a scale and breadth perspective, but also from the specific capabilities of the Teleperformance Specialized Services including Language Line Solutions, TLS, and Praxidia, a customer experience and business transformation optimization consultancy firm wholly owned by Teleperformance.
- Teleperformance is a global operator that supports 265 languages and the ability to operate cognitive agents in 35 languages.
- The Teleperformance Client omnichannel platform enables a channel agnostic solution where conversational services can be plugged in easily to all available channels.

Development opportunities

- Teleperformance is still in the very early stages of honing its offering and messaging for cognitive assistant services; its case studies are limited, less developed, and more focused on cost savings elements.
- Teleperformance will need to develop its partnership ecosystem further to become competitive in this emerging space.

Key clients and go-to-market approach

- Key clients include an e-commerce company and a logistics company.
- Teleperformance has partnered with Artificial Solutions to create the "Teleperformance Chat Bot." This solution can answer less-complicated chats with customers and, because it is part of its omnichannel platform teleperformance client, chats are seamlessly handed to live agents whenever the level of complexity requires it. The primary focus is on making customer interactions more cost-effective.
- Teleperformance Chat Bot incorporates learning capabilities that make it more effective through continuous usage. Teleperformance is now moving beyond classification into actual diagnosis and resolution from various innovators. A key element of the Teleperformance solution is to enhance deep learning with the ability to keep context, as this allows to evolve from localized and legacy optimizations relying on scripted conversations, to more holistic approaches supporting natural language interaction.

Client case study highlights

- Pilots include a high-growth e-commerce brand for young people that served most of its customers through Twitter or web chat but was challenged by the volume of chat growth and wanted to lower its cost to serve. Teleperformance analyzed the chat transcripts and found that 30% were related to order deliveries and about half of them relate to a simple inquiry that could be served by a chatbot. It is working through the cost-to-serve analysis with the intent of implementing a conversational agent.

Convergys: A customer experience leader in the very early stages of developing a cognitive assistant capability

TOP 10 HFS

Dimension	Rank
HFS Top 10 position	**#19**
Execution success	
Cognitive assistants in production	#19
Partner ecosystem	#19
Delivery breadth	#19
Innovation capability	
Consulting and design	#19
Vision and roadmap	#19
Focus on business outcomes	#19
Voice of the customer	#19

Strengths

- Convergys is designing and positioning its cognitive assistant solution as just as important for internal use with its live agents (not just to consumers of its clients). This approach will highlight how cognitive assistants can improve average handle time and empower better customer service by focusing on the agent experience.
- It is wise for Convergys to look first at the potential to become a thought leader in this space for agent assistance and augmentation to drive client adoption.
- Convergys has 500 customers on its IVR platform; this is a potential sales channel for cognitive assistants.

Development opportunities

- Convergys is in the very early stages of developing this capability in a client-facing capacity; it will need to demonstrate some client examples and proven outcomes in order to gain traction and relevance to monetize the capabilities in the cognitive assistant services market.

Key clients and go-to-market approach

- Key clients include a major credit card company in the pilot and implementation phase.
- Convergys' cognitive assistant has been available since December of 2017 and is currently in the implementation phase with one client. Convergys VA functions can leverage AI models, custom business logic, and enterprise data and transactions to provide the most effective user service.

Client case study highlights

- Convergys has conducted a pilot and is implementing into production its first conversational virtual assistant within its IVR for a credit card client. The pilot has an outcome-based structure that promises cost containment, improved customer experience, and projected annual savings.
- Convergys has deployed into production an agent-facing assistant to help its employees identify the right answer as quickly as possible. The "VA" or virtual assistant utilizes NLU and machine learning to improve automatically and uses knowledge management on the back end to surface right answers but does not replace a client's knowledge base system. The goal of this deployment is to improve average handle time and Net Promoter Score with a flexible GUI design customizable to any client program to improve the agent and ultimately customer experience.

About the author and HFS

About the author

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Melissa O'Brien is Research Vice President, Customer Engagement, Retail and Travel Strategies at HfS Research. Melissa leads HfS' research initiatives for digital front office services, including customer engagement operations, digital marketing, cognitive agents and CX design and consulting – digging into the trends and change agents that are driving customer experience across the enterprise. In addition, her industry research focuses on key dynamics within retail, CPG, travel and hospitality with regards to customer-centric strategies, intelligent operations and service delivery. (view bio and contact details).

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