



HfS Emerging Market Guide: IBM Watson Services

Excerpt for Accenture

May 2017 | Authors: **Reetika Joshi, Research Director, Operations & Analytics Strategies & Tom Reuner, SVP Intelligent Automation & IT Services, HfS Research**

What You Need to Know About IBM Watson and the Watson Services Landscape

Why Are We Looking at Cognitive Systems and Watson, Specifically?

Business leaders today across IT and operations have heard a lot about cognitive technologies in the last few years, but still lack clarity on practical applications. What are cognitive technologies, and why are they suddenly relevant and ready for enterprise use? More importantly, what do they mean for their specific departments and what are the use cases?

Several factors have led us to this unprecedented scenario. As data and analytics have become increasingly accessible and actionable over the last five years, Artificial Intelligence (AI) and cognitive systems have landed at the forefront of our personal and professional discussions. With the growth of low-cost computing data storage capacities, cognitive techniques finally have an environment in which to thrive. And, due to the curiosity and questioning we highlighted above, in the last few years, enterprises, startups, governments, and individuals alike have carefully started experimenting with use cases in different industry verticals. During this time, critical elements for integrating AI and cognitive systems into the business environment have also evolved. The related technologies grew more sophisticated; the startups and tech giants investing in them became apparent and took their stands on focus areas. They expanded pilots and, as a result, enterprises and the public alike gained familiarity with the concept of a cognitive application in their everyday personal and professional lives (e.g. Amazon with Alexa).

The result is that cognitive and AI applications are manifesting in a multitude of ways within enterprises. These include front-end chatbots that enable customer self-service or create interactive shopping experiences; virtual assistants that help marketing or supply chain professionals make better decisions with insightful, predictive data and analysis; and self-learning systems that can sift through millions of documents, streamline data extraction and analysis, and update databases for tasks such as customer due diligence, legal reviews, and medical diagnoses. The bottom-line—in the next three to five years, we’re going to see the mainstreaming of cognitive technology on the back of this gradual progress.

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From startups to Google, Facebook, Amazon, and Microsoft, the AI and cognitive market is seeing tremendous interest and investment in every corner and intersection of technology and market application.



What makes IBM Watson both interesting and important is that IBM is one of the few companies out there that is trying to figure out how to get cognitive systems into enterprises – legacy environments and all – in a scaled way. After a period of confusion and false starts, IBM has now positioned Watson as the most ubiquitous cognitive platform available with consumption models suited for enterprises. We’re seeing traction with new Watson engagements steadily being announced as more enterprises and governments get their hands dirty in the Watson portfolio.

Watson is relevant for many different types of business cases. For example, it will be leveraged for something as highly visible as answering non-emergency police calls (311) for NYC starting in 2018. In a completely different business case and an example of entirely discretionary marketing spending, Watson will soon be powering Sears Auto Center’s “Digital Tire Journey” for online customers. To make Watson relevant and meaningful, IBM has learned to use Design Thinking as the starting point for these solutions – to put human needs and experience at the core of defining problems and solutions that use the technology – instead of starting from the vantage point of what the technology can do. Some of these lessons have been very public and can be useful for others on the journey. Simply put, IBM has the broadest range of cognitive capabilities in the world; as Big Blue’s strategic growth pillar, Watson will certainly continue to get the significant funding it needs to continue to evolve in the foreseeable future.

IBM’s deep investments into Watson and broader cognitive capabilities have been well documented. These cognitive solutions have evolved into the new strategic pillar for IBM, adjacent to digital technologies. Its capabilities go far beyond playing Jeopardy, which is what initially captured the imagination of many stakeholders. The strategic intent includes IBM driving these solutions through their own organization and more broadly, with IBM Watson Group as the lead, developing and managing a broad and heterogeneous set of products and services. As IBM develops Watson as an ecosystem and even offers it to other service providers, HfS sees a broader traction in the market, to the extent that HfS decided to launch this study and explore if, how, and why it is gaining momentum. Is Watson starting to evolve as an ecosystem for the broader industry just as we have seen with the likes of Salesforce and Workday?

In IBM’s words, Watson can understand all forms of data, interact naturally with people, and learn and reason, at scale. Watson is IBM’s umbrella brand for a range of Artificial Intelligence, cognitive, and machine learning techniques and related applications. Watson technology is available from IBM in the form of APIs that represent different machine learning techniques. These APIs include language, speech, video, and data insights. In addition, IBM has also created – and continues to iterate on – a few products that bring together these APIs in meaningful ways to create specific solutions. As an example, the Watson Conversation product brings together multiple language and speech APIs into a kit with a visual dialog builder to help developers build chatbots. Watson is available for use through the Watson Developer Cloud on IBM Bluemix, which is a cloud Platform As-a-Service offering from IBM for developers to create, deploy, and manage applications in the cloud. Watson is offered as a “build your own” option or packaged with pre-defined starting points for solutions.

Watson’s APIs and products are being leveraged by startups and global tech companies alike; IBM’s own range of products featuring Watson is growing with every passing quarter as it organizes around industry



verticals and business professions and puts a Watson “flavor” on existing portfolios, such as its business intelligence and analytics platforms.

Watson’s Key Building Blocks

While IBM is still struggling to convey a coherent narrative for the heterogeneous capabilities of Watson, its partners are starting to develop succinct strategies and narratives for specific segments of the market. Crucially these capabilities range from analytics to cognitive solutions and virtual agents. To provide more clarity here is a list of the main reference points for both services and products:

Watson Products:

- » **Watson Discovery:** Supports building a cognitive search and content analytics engine. Watson Discovery helps developers quickly ingest data to find hidden patterns and answers, enabling better decisions across teams.
- » **Watson Conversation:** Builds, tests, and deploys bots or virtual agents across mobile devices, messaging platforms, or even on a physical robot to create natural conversations between apps and users.
- » **Watson Virtual Agents:** Configures virtual agents with company information, using pre-built content, and engages customers in a conversational, personalized manner, on any channel.
- » **Watson Knowledge Studio:** Teaches Watson to discover meaningful insights in unstructured text without writing any code.
- » **Explore Watson APIs:** Uses Watson language, conversation, speech, vision, and data insight APIs to add cognitive functionality to applications or services.

Watson Services:

- » **Language:** Includes Alchemy Language, Conversation, Dialog, Document Conversion, Language Translator, Natural Language Classifier, Natural Language Understanding, Personality Insights, Retrieve and Rank, and Tone Analyzer.
- » **Speech:** Includes Speech to Text and Text to Speech.
- » **Vision:** Includes Visual Recognition.
- » **Data Insights:** Includes AlchemyData News, Discovery, Discovery News, Tradeoff Analytics.

Is There an Emerging Ecosystem for Watson Services?

The Watson assets are available for enterprises to license and use the same way you would engage with any other IBM software application or service offering. Also, like with the others, technology service providers can step in to take this technology to market with consulting, solution design, implementation, and maintenance for various use cases. While IBM is taking Watson to its technology and business services



clients through the IBM Global Services group, it isn't the only provider doing so. Yet, under the "Cognitive" moniker, Watson and other technology assets have evolved into a central strategic pillar for IBM, mitigating the decline in some of their traditional lines of business.

IBM has been busy putting together the building blocks for its partner ecosystem to leverage and create a multitude of Watson-powered applications. However, the narrative around this emerging ecosystem is still evolving. With IBM's opening of its "API economy" approach with Watson, we've seen interest in Watson service provision from an array of multinational technology services firms such as Accenture and CXC Technology; major and emerging Indian players like Wipro, HCL, and Tech Mahindra; consulting firms like KPMG and E&Y; and niche cognitive companies making custom applications. A few service providers are also weaving Watson into their own proprietary platforms to give clients a quicker path to cognitive capabilities in select business functions and verticals.

The question we asked throughout our research was whether there is an "ecosystem" developing around the Watson technology stack, similar to what we see with Salesforce or Workday services. The answer is a murky yes—for now. In the last year, in particular, the IBM Watson software group appears to have been investing and evolving Watson technology with the help of its partner network, with some being more willing than others. IBM has made a distinctive move and strategy to increase the number of developers, ISVs, and partners using Watson technology in building various applications. Most service providers in our research report that there are virtual walls built in between the software group and the IBM Global Services organization, and that the software group actively collaborates with some of them in areas like testing early releases, gathering feedback, and building new functionality. The IBM Watson group seems ready and active and is making the right moves to put alliances in place to help its technology go far.

The market appears to be taking a pragmatic approach, waiting and watching to see if and how demand for cognitive technologies, and Watson as a subset, takes off.

On the other side of the equation, however, we do not see the majority of the service provider landscape making concerted efforts just yet to band together a Watson Services practice. Most of the market appears to be taking a pragmatic approach, waiting and watching to see if and how demand for cognitive technologies, and Watson as a subset, takes off. They are weaving Watson-based proofs-of-concept (PoCs) and pilots into areas where they and clients see potential applicability, such as IoT, financial services, and analytics. Also, they are putting some resources on the training roadmap to explore what could be done with Watson APIs opportunistically. Having said all this, we do see a few service providers making the necessary investments and commitments, putting boundaries around Watson practices that they hope to scale up organically.

IBM Watson Services: Trends and Themes

Our Watson Services research found:

- » **PoCs in Full Swing with Analytics Taking the Lead:** As we anticipated with the nascent state of the market, most enterprise buyers interested in IBM Watson are "kicking the tires" with proof-of-concepts conducted or underway. The most mature implementations we see are for Watson Analytics,



which offers clients a data discovery service available in the cloud and features data exploration, advanced analytics, and visualization for end consumption. For example, a retailer used Watson Analytics to determine the best offer or interaction at the next point of customer contact. By contrast, the Watson cognitive API and product market is still too new. Even with the most tenured, early-adopter clients, we see implementations of point solutions at best, such as outlined in the table below. The sweeping “industrial scale” implementations where Watson runs an entire business function just don’t exist today—and that’s ok. The supply side is aligning itself around this emerging technology in many ways, and PoCs with joint investments from clients are helping establish new norms for people, processes, and technology that will pave the way for larger projects in the future.

- » **Providers Picking Their Sweet Spots:** With IBM labelling several different types of technologies and products under the Watson brand umbrella, there are several entry points for IT and business services providers. Some are working at the intersection of industry verticals and technology, such as Capgemini with its Watson IoT initiatives for manufacturing, or DXC Technology’s exploration of Watson APIs for improving core insurance processes. Service providers like Wipro and Hexaware have made investments in Watson Analytics for areas like customer analytics and predictive maintenance and are betting on embedding Watson in their own proprietary platforms. Others, such as TCS, Accenture, and IBM, are taking a broader approach and using a blend of Watson APIs and products across industries, opportunistically doing PoCs with the most willing clients.
- » **Cognitive Practices in Development:** As far as setting up Watson practices or Centers of Excellence (CoE), most service providers seem to be establishing central capabilities around cognitive technologies as a whole, with some creating Watson practices as a subset. These cognitive and Watson capabilities are either coming up within the corporate automation groups (e.g., Tech Mahindra), analytics practices (e.g., Wipro), or groups setup to address “emerging technology” broadly (e.g., HCL’s DRYICE). Most providers are betting on multiple cognitive technologies and are having to balance investments across them. In competition with IBM’s Watson is Microsoft’s Cortana and Azure Machine Learning, Google’s TensorFlow, Facebook’s M, IPSoft’s Amelia, Amazon Machine Learning on AWS, and in one provider’s case, Salesforce Einstein. There are a number of other industry and function-relevant startups and boutiques that service providers are experimenting with, but in terms of scale of investment and enterprise readiness, these are the big platforms emerging alongside Watson.
- » **IBM Watson Relationships Are Getting Serious:** The emerging Watson ecosystem is placing new emphasis on IBM alliance partnerships. Proximity to and collaboration with the IBM Watson software group is becoming crucial for those service providers planning full-fledged Watson services practices down the road.

Below is an illustrative list of current Watson services use cases, PoCs and live projects that enterprise buyers are exploring with service providers, including proprietary solutions leveraging Watson technology.

Exhibit 1: Use Cases For IBM Watson Services In Our Research

Watson products	<ul style="list-style-type: none"> ● Using IBM Watson Engagement Advisor, IBM GBS helped a Brazilian bank develop a cognitive solution that suggests answers when the bank's call-center agents enter customer questions. It gathers customer feedback and the information will drive a new mobile app the bank is developing to provide voice-activated customer support.
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	<ul style="list-style-type: none"> • Tech Mahindra used Watson Knowledge Studio to develop its Cognitive Text Extraction Engine (CTEE), a tool that analyses complex documents, extracts the required information, and passes it to the relevant systems. • Capgemini used Watson Explorer to conduct medical research in collaboration with Akershus University Hospital in Norway to optimize the use of CT examinations. • TCS has a live project with a large professional services firm where it is using Watson Explorer to provide unified information access – a 360 degree view – for auditors.
Watson services	<ul style="list-style-type: none"> • Tech Mahindra has used conversation APIs to create chatbots including Intellichat (at the PoC stage) for the pensions and retirements space in UK and Australian markets, and IRIS and for self-serve customer interactions for a major telco in Australia. • Wipro used IBM BigInsights and Watson APIs on its Data Discovery Platform to provide advanced analytics to a West Australian state government-owned corporation, to predict and prioritize the conductors that were due for replacement. • Hexaware has used Alchemy API to identify sentiments of equity being analyzed using equity bots. • Using IBM Watson Conversation, Tone Analyzer, and Text-to-Speech services, Accenture built a virtual registration assistant, Nandini, for Leonard Cheshire Disability (LCD) to allow job seekers with varied disabilities to digitally register themselves in an easy, engaging, and accessible manner. • DXC Technology is undertaking a PoC for a large insurance client using various Watson APIs starting with sentiment analysis, content analysis of call summary notes, and intelligent call routing. • HCL is working with an American insurance company to evaluate its HCL DRYiCE LUCY tool, leveraging Watson speech to text and text to speech APIs for speeding up and automating the process of claim processing. They plan to entirely eliminate the service desk that attends to user calls related to claims and claims processing.

Recommendations for Service Buyers That Know the Journey Ahead is Not Going to be “Elementary”

While IBM Watson technology has been around officially for a few years and PoC projects are the norm so far, HfS heard a lot of industry optimism and “gearing up” for 2017 being the year of more substantive implementations. Cognitive initiatives will invariably have an overlap effect – as a department undertakes the required data curation, reference architecture, process remodelling, and rollout, it will interact with and influence other departments or processes and advance their maturity toward more intelligent operations as well. For example, a retailer could go from a production pilot in personalized shopping on its website into cognitively determined best next actions for its sales channels, then on to cognitively driven merchandising and supply network on the back end to better predict demand. The core customer and product data can be leveraged across these functions and can become a powerful way to reinvent the entire customer engagement process. It is this focus on better enabling the customer or stakeholder experience that is driving most service providers to explore Watson services and clients, per our analysis. Whether you are a buyer that has been a part of the early vanguard of Watson experimentation and is now ready for a broader impact, or you are just getting started, we suggest the following considerations for Watson services engagements:

- » **Understand Where and How Your Service Provider Is Investing in Watson to Offset Cost:** Perhaps the biggest barrier of Watson adoption for enterprise clients has been its high price tag for entry. This is something service providers have been trying to circumvent by exploring options where they can host the Bluemix and Watson licenses plus external databases and have clients access both the



technology and data, particularly for proprietary solutions where cognitive APIs are being leveraged. Service providers are also willing to invest disproportionately in areas that are strategic to them, which would make good candidates for clients with cost concerns. Another scenario we are seeing is where clients have access to the Bluemix cloud computing environment, and are getting started with Watson on it as an incremental investment. As Microsoft Azure and Amazon AWS all have their own machine learning technologies, the decision on which cognitive ecosystem you go with will be influenced by these larger technology buying decisions.

- » **Find the Provider That Is Collaborating with IBM in Areas That Matter to You:** Even as the market organizes around it, Watson technology is constantly evolving with frequent updates, releases, and new product rollouts from IBM as it evaluates how to best package cognitive technology for scalable enterprise usage. We heard instances of how by providing feedback to the IBM Watson product development team and working collaboratively, some service providers were able to influence the release of new functionalities that benefitted client projects directly. Watson APIs and products are being constantly revamped, retired, and regrouped and it will help to have advance knowledge from a service provider that is deeply involved with IBM in advancing specific areas. Look for the connections that your service provider team has been able to establish that could impact your particular use cases.
- » **Find the Service Provider That Is Investing in Your Vision—Or Using Design Thinking to Help You Develop One:** Even in these early days, we see industry, functional, and technological strengths developing among service providers. The experience gained and customization achieved with specific solutions – like Hexaware’s superannuation bot or Accenture’s mortgage advisor Collette – are valuable to services buyers that have already outlined these areas for Watson or are looking for new levers for value to their business and customer base. In areas where there is not a relevant standard solution, you and your service provider’s other clients will often have competing priorities. In these instances, look for the service providers with experience in your industry or functional area to help you fine-tune your use case. Consider service providers that offer Design Thinking workshops to establish the top business priorities, the process and technology roadmaps, and the definition of your own version of a future-state with an “augmented workforce.”
- » **Don’t Underestimate the Power and Influence of Naysayers—Educate Them First:** Multiple clients highlighted this as their key learning. One financial services VP shares, “Internal stakeholders require fundamental lessons on what Watson is and isn’t. Don’t take their knowledge as a given. Our sceptics didn’t fully understand what cognitive or data mining benefits Watson brings; we should’ve expected it earlier on and addressed it head first.” Without aligning organizational buy-in, clients saw significant slowdowns in each stage of their projects. Make sure your key representatives understand the breadth of the technology and its suitability to your use case before kicking off and them check in regularly.



IBM Watson Services Emerging Market Grid

Given the early and evolving state of this services market, HfS undertook a preliminary Emerging Market Guide analysis instead of a full Blueprint report. For a full definition of HfS' Blueprint Reports, Emerging Market Guides, and our Blueprint Snapshot, [visit our website](#). Our perspective, including user and client interviews and service provider briefings, reflects where service providers for IBM Watson services stand today and how they're positioned for future success. In this particular report, it is also unique and challenging that the analysis is about an IBM offering and evaluates IBM as a service provider at the same time. What we are trying to convey with the coverage of IBM is how the company is positioning and communicating its services rather than providing judgment on Watson as an offering or technology. To give you a picture of how HfS sees the IBM Watson Services market landscape at this point in time, we evaluated two areas:

Execution

- » **Skin in the Game:** We evaluate a company's skin in the game by its R&D, investment, and financial commitment to developing Watson services and strategic partner alignment with IBM. We're looking for more than a few white papers and press releases. We're evaluating the existence of technology labs, code bases, Watson-based applications and products, solution sets, and other evidence that the service provider is building capability and is committed to the space. In particular, we are evaluating whether the service provider is taking an ecosystem partner approach with IBM Watson.
- » **Named Clients:** We certainly want to know about case studies and use cases regardless of whether the clients are anonymous. However, the existence of clients that are willing to be referenced by name often shows mature engagements. We also take into account the types of engagements where possible, with heavier emphasis on projects that are operating in the business over those that are exploratory.

Innovation

- » **Ability to Communicate Vision:** Too often, providers, especially technology vendors, get very excited about a technology and tout it as the next great disruption—while leaving it to clients to envision how that technology might be applied to their specific business problems. So we give more

This Report is Based On:

- **Data Summary:** Data was collected via RFIs, interviews, and briefings, and from publicly available information sources. Sources include: buyers, providers and advisors of Watson-based and cognitive services.
- **Tales from the Trenches:** Interviews with buyers, clients of the service providers covered. Some contacts came from service providers and others were interviews conducted with the HfS network. In cases where there is a shortfall in client references, HfS used analyst judgment based on secondary research, related HfS market surveys, experience, and interviews with industry experts and stakeholders.
- **Global 2000 Interviews:** HfS conducts an annual survey of 300 enterprise buyers of IT services from the Global 2000 where we ask specific questions pertaining to innovation and execution performance of service providers
- **Sell-Side Executive Briefings:** Structured discussions with service providers regarding their vision, strategy, capability, and examples of innovation and execution
- **Publicly Available Information:** Thought leadership, investor analyst materials, website information, presentations given by senior executives, industry events, etc.



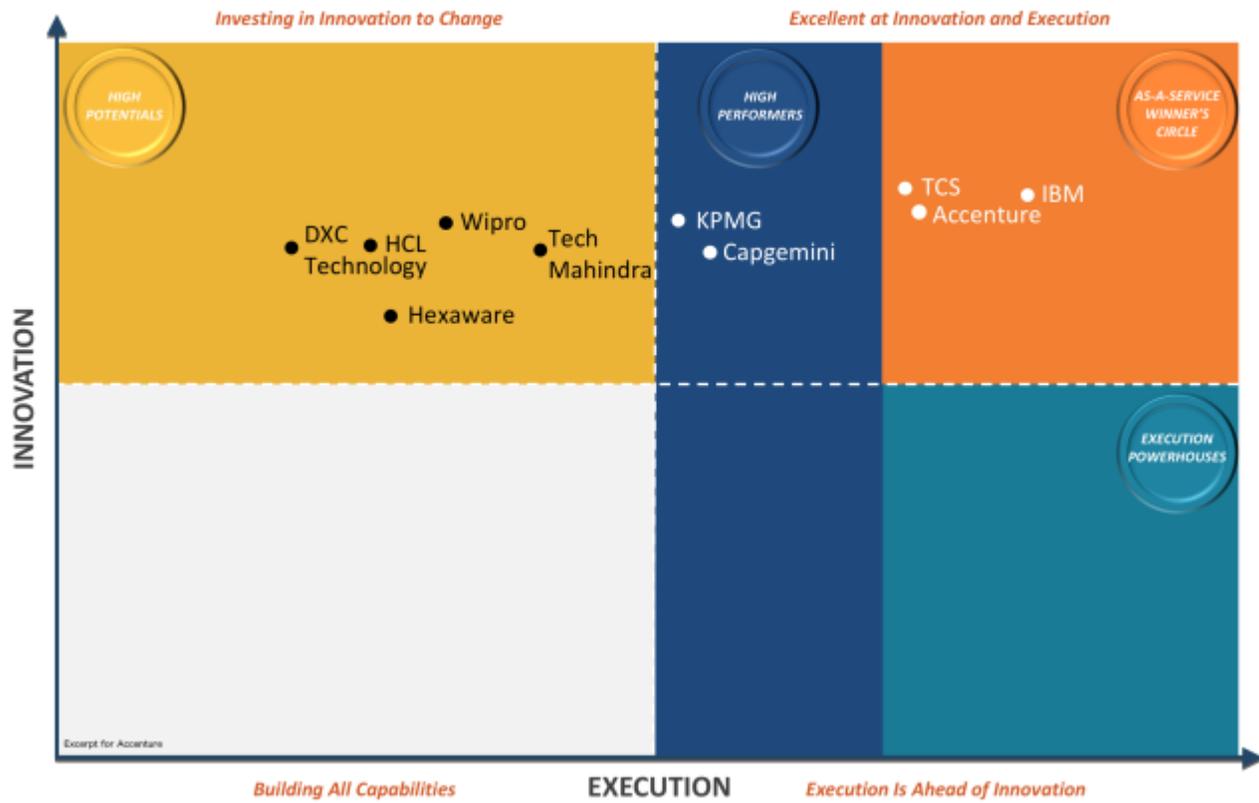
credibility to providers that can help explain cognitive technologies to clients in ways that show the real potential and applicability to business over those that have more grandiose but ultimately less tangible ideas for how Watson technology specifically can be used in practice.

- » **Specificity of Solutions Across the Watson Portfolio:** Providers that offer generic Watson advisory and implementation services receive less credit than those that are creating more specific solutions, such as “Watson for Insurance Claims.” Most providers are pitching the generic and the specific. However, extra credit goes to specifics and the number of examples across the broad Watson portfolio.

HfS recommends that this grid be viewed as a starting point. The market is fairly new and capabilities are emerging so quickly that it is difficult to present this analysis as the “final word.” Having said that, we believe that the service providers outlined in the As-a-Service Winner’s Circle and High Performers are *best positioned* to develop their execution and innovation capabilities based on their progress with Watson thus far.



Exhibit 2: HfS Emerging Market Guide: IBM Watson Services



Source: HfS Research, 2017



Service Provider Profile

Accenture

Market approach and capabilities	<p>Accenture's Artificial Intelligence SGI (Strategic Growth Initiative) is driving the leverage and integration of Watson's capabilities across its Digital, Technology, and Operations businesses. The Accenture Technology business houses the Accenture Watson Practice, which is supported by the Accenture Innovation Center for IBM Technologies (AICIT), a global team of practitioners for IBM software and hardware. Under the AICIT, five Accenture locations are dedicated to rapidly delivering Watson-enabled solutions and proof of concepts to clients.</p> <p>The service provider has invested in industry assets including points of view and educational documents and 15+ industry-focused demonstrations.</p>
Strengths	<ul style="list-style-type: none"> Investment in AI thought leadership is a major strength. With AI being one of Accenture's strategic growth initiatives, Watson is one of three major AI partnerships for the service provider. AI features prominently in Accenture's Technology Vision 2017 paper, with a distinctly clear and simple articulation for how AI will impact people, processes, and business models in the future. It will give you a good starting point for thinking about how AI can work. Accenture's articulation of Watson services is a related strength, describing industry-specific virtual agents and customer experience solutions. Capability development for Watson is a key strength. Establishing dedicated locations under the Accenture Innovation Center for IBM Technologies for creating Watson industry assets is more advanced than most of its competitors in this space. Its partnership status with IBM is another strength, with executive involvement and interest on both sides; Adam Burden, Managing Director at Accenture and David Kenney, SVP IBM Watson and Cloud Platform, drive the relationship.
Challenges	<ul style="list-style-type: none"> Continue to invest in building out proof points and demos for a diverse set of use cases to position Watson capabilities in the actual situation of potential clients. As a market leader, Accenture particularly needs some marquee client examples out in the market, where it has advanced from PoCs to live implementations. Balance Watson investments over the medium term as partnerships with other AI technologies and platforms advance.
Key clients	<p>Among its clients, Accenture has Plan International, a US-based law firm, a large telco, and a major Italian government department.</p>
Examples and results	<p>Using IBM Bluemix, Watson Natural Language Classifier, and Watson Dialog Service, Accenture has built a customer care chat agent and a mortgage advice agent named Collette. Collette provides a tailored mortgage recommendation to customers, reduces cost by 95% versus a certified financial planner, and is compliant with the Mortgage Conduct of Business rule book.</p> <p>For a government agency, Accenture used Watson Explorer and Watson Q&A service to create a digital assistant capable of handling real-time telephone and webchat customer interactions, answering queries across four macro-categories. This resulted in 45% FTE load reduction and 30% improvement in the speed of service. 5,000 monthly customer interactions (40%) are handled without human intervention.</p>

**In brief**

Clients that are interested in rapid prototypes (4 to 6 weeks) will find Accenture's AICIT as a valuable resource, backed up by the service provider's commitment to growing Watson talent. Accenture's approach and progress on virtual agents is also commendable, with vertically relevant offerings like Collette for mortgage and Cathy, an insurance chatbot.



What to Watch

In the next year, we will start to see the industrialization of cognitive capabilities specific to Watson in a few areas. One pretty clear focus is on conversation services, with simpler chatbots and more comprehensive virtual agents for a variety of use cases. IBM will also likely release more context-aware versions of its existing products and APIs that come more industry-ready “out of the box.” Service providers will build chatbot and virtual agent frameworks to accelerate the rate at which to train the agents. These virtual agents might start in internal-facing functions initially (e.g., HR or the IT helpdesk), with a roadmap to move to end-customer interactions.

We foresee similarly high interest and adoption of Watson’s data extraction, categorization, and text mining capabilities to help enterprises drive business efficiencies, particularly in back-office processes. The evolution of existing and new Watson APIs, Watson Explorer, and its data connectors will drive the conversations for building Watson applications in middle- and back-office functions. The biggest considerations here are the underlying data security and privacy issues and cloud readiness, which enterprises will have to address internally. As one client mentions, “Apart from our current Watson success, in the medium term we’ll have to address an interesting challenge. If we want to start leveraging some cognitive capabilities with our internal systems, data ownership gets murky—who owns it and how do we outline our data stewardship and governance?” On the analytics front, the IBM Watson Data Platform will consolidate the efforts around sourcing different types of data, helping clients set up big data analytics platforms. This will continue to be the most mature part of the Watson services ecosystem, and will form a basis for leveraging other Watson APIs and products on top of the analytics applications.

Looking at current Intelligent Automation tools and frameworks, we see a lot of interest in and adoption of robotic process automation (RPA) tools, with cognitive technologies like Watson being described as areas of adoption two to five years down the road. As these two technologies start to be implemented in the same operational environment, along with other BPM tools, workflow tools, and the like, you will need to plan ahead and envision your enterprise processes end-to-end instead of the point solutions of today that take a technology-first approach. HfS sees a future whereby using a business-first approach, enterprise processes include different RPA tools, interacting with cognitive services on multiple platforms, with shared data definitions and standards. A current Watson client foresees the following operating environment, “We can start envisioning tools that use applications like Salesforce to start activities on behalf of employees, things like setting up appointments, recognizing due-dates for action items, and triggering emails. There are some tasks that can be done better through robotics to build more efficiencies when compared to humans. Cognitive tools then come into play to assist our staff with navigating the complex work left over, making them even more effective. We want to get to that state aspirationally in maybe three years. We see a world where you’ll always have human touch where you need it, but we’ll apply more science to making it more fine-tuned.”

Looking Ahead at How Watson Fits into Future Customer-Centric Business Operations—the Digital OneOffice™

Successful businesses in the future will create a digital experience for their customers. And that means connecting front, middle, and back office to integrate data across all its key interaction channels and thus operating as a “Digital OneOffice.” This approach will enable enterprises to predict when things will go



wrong and devise smart strategies to get ahead of them, rather than collecting and archiving historical data simply to discover what went wrong. Digital OneOffice is about embedding smart cognitive applications – like those based on Watson – into process chains and workflows that then enable users to learn from mistakes and new experiences in real time. An example of this approach is IBM’s procurement intelligence solution, which leverages Watson to help procurement professionals get answers to questions through interactive chat and access supplier and category data without going into multiple systems. Service providers have an opportunity to identify and standardize these types of services into BPaaS, industry platforms, and Intelligent Automation. The goal is to provide insights and data in real-time to the organization, but crucially in a vertical and domain-specific context.

We will continue to track Watson and other cognitive technologies as enterprises go from PoCs and PoTs to live projects and implementations, and eventually, more intelligent operations in the next few years. The key will be for the IBM Watson development team and its emerging set of services partners to make it easier for enterprises to get started, with technology accelerators and context-specific solutions, creative and accessible commercial constructs such as pay-as-you-go services on a shared Watson Explorer platform, and collaborative competency building initiatives (talent and tech) for the industry as a whole.



About the Authors

Reetika Joshi



Reetika Joshi is Research Director, Operations & Analytics Strategies at HfS Research. She currently tracks verticalized, technology-enabled operations in insurance and banking and financial services. Her research coverage also includes enterprise analytics services and its evolution towards Accessible & Actionable Data within client organizations. She regularly contributes to HfS' research content in the form of HfS Blueprint reports, PoVs, and blog posts. She also leads custom research and strategy projects; analyzing data, supporting client inquiry, conducting regular discussions and briefings with both buyers and service providers.

Prior to HfS, Reetika worked in the sourcing research wing of business research and consulting firm ValueNotes. Her responsibilities as Project Manager included research product design and development, managing custom research engagements, developing thought leadership and community interaction.

Based in Cambridge, MA, Reetika has undertaken several research assignments across business services and outsourcing, including market studies in niche areas such as analytics, medical transcription, market research, and e-learning. She has led bespoke research engagements including competitive intelligence studies, market and investment opportunity assessments, and demand-side surveys for global IT and business operations buyers, providers, consultants, and investors. Her work has appeared in many industry-relevant publications and websites. She regularly presents her views at various industry conferences and webcasts.

Reetika has completed her Masters in Marketing Management with distinction from Aston University, UK, receiving Beta Gamma Sigma honors. Prior to this, she received her Bachelor's in Business Administration with distinction from Symbiosis International University, India.

On a more personal note, she enjoys reading fantasy series, travelling to world heritage sites and strategy/simulation gaming.

Reetika can be reached at Reetika.Joshi@hfsresearch.com and followed on Twitter at [@JoshiReetika](https://twitter.com/JoshiReetika)



Tom Reuner



Tom Reuner is Senior Vice President, Intelligent Automation and IT Services at HfS. Tom is responsible for driving the HfS research agenda for the “As-a-Service Economy” across SaaS applications, cloud eco-systems and IT . Together with his HfS colleagues Tom continues to develop ground breaking research around process automation and cognitive computing in both IT and business processes. A central theme for all of his research is the increasing linkages between technological evolution and evolution in the delivery of business processes.

Tom’s deep understanding of the dynamics of this market comes from having held senior positions with Gartner, Ovum and KPMG Consulting in the UK and with IDC in Germany where his responsibilities ranged from research and consulting to business development. He has always been involved in advising clients on the formulation of strategies, guiding them through methodologies and analytical data and working with clients to develop impactful and actionable insights. Tom is frequently quoted in the leading business and national press, appeared on TV and is a regular presenter at conferences.

Tom has a PhD in History from the University of Göttingen in Germany.

He lives in London with his wife and in his spare time, he is trying to improve his culinary skills in order to distract him from the straining experience of being a Spurs supporter.

Tom can be reached at tom.reuner@hfsresearch.com and followed on Twitter at [@tom_reuner](https://twitter.com/tom_reuner).



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HfS coined the terms "The As-a-Service Economy" and "OneOffice™", which describe HfS Research's vision for the future of global operations and the impact of cognitive automation and digital technologies. HfS' vision is centered on creating the digital customer experience and an intelligent, single office to enable and support it. HfS' core mission is about helping clients achieve an integrated support operation that has the digital prowess to enable its organization to meet customer demand—as and when that demand happens. With specific practice areas focused on the Digitization of business processes and Design Thinking, Intelligent Automation, and Outsourcing, HfS analysts apply industry knowledge in healthcare, life sciences, retail, manufacturing, energy, utilities, telecommunications, and financial services to form a real viewpoint of the future of business operations.

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