# NEW ENERGY CONSUMER
MAY THE BOTS BE WITH YOU

Energy providers are no longer on their own in the quest to keep pace with the "instant-everything" expectations of consumers. Here's how robotic process automation and artificial intelligence are changing the customer service paradigm.

Energy consumer expectations have become liquid—flowing across all the experiences they have with their different providers. They expect their needs to be met and their questions to be answered instantly. Preferably while they're doing other things at the same time. Energy providers appreciate the importance of speed, too. They want to drive efficiency and accuracy at a lower cost and at pace without affecting customer experience. Consumer and provider goals that were once at odds are coming into closer alignment. That's due to the latest developments in digital technologies:

MESSAGING TECHNOLOGIES

From Facebook Messenger to WhatsApp, WeChat and LINE, messaging services can do much more than facilitate conversations. Underscoring their widespread consumer adoption, these platforms now boast 3 billion active users who send more than 60 billion messages each day.[1] The functionality they offer has evolved to include features like payments, ordering and booking, which once required separate apps.
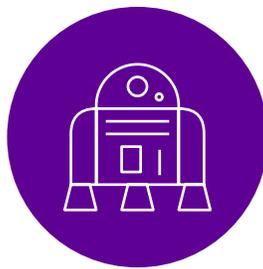
ARTIFICIAL INTELLIGENCE (AI)

These technologies have made significant advances in recent years, including improvements in self-learning and deep-learning techniques. In Accenture's 2017 Technology Vision survey of utility executives, 37 percent indicated they will be investing extensively in embedded AI-related technologies over the next three years.[2]
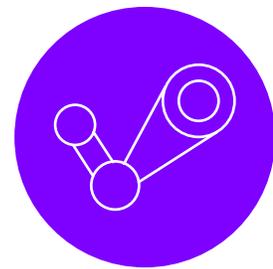
ROBOTIC PROCESS AUTOMATION

Many leading energy providers are already using robotics to revolutionize back-office performance and process efficiency. Over the past year, robotics and AI have also gained ground in front-office customer service across numerous sectors. Accenture believes this is just the beginning.

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[1] "Chatbots in Customer Service," Accenture Interactive, 2016, www.accenture.com.

[2] "Technology Vision 2017," Accenture, 2017, www.accenture.com.

BOT **BASICS**

Despite growing interest and market movement toward automation, definitions and use cases remain broad and often misunderstood. Accenture views automation as encompassing a wide spectrum of solutions for energy providers in both the front and back offices. How automation is defined and applied will differ from industry to industry and according to purpose. Broadly speaking, for energy consumer services, the spectrum can be divided into four categories (see Figure 1):

1

INTEGRATED DESKTOP

This includes ad-hoc automation that automatically consolidates data from multiple sources for a customer service representative during a customer interaction or in the back office. They often take the form of mini-solutions acting on top of a legacy system to lower average handling times.

2

ROBOTIC PROCESS AUTOMATION (RPA)

These are purpose-built digitizations of business processes—often focused on the back office and designed to replace manual tasks and streamline human-centered ones.

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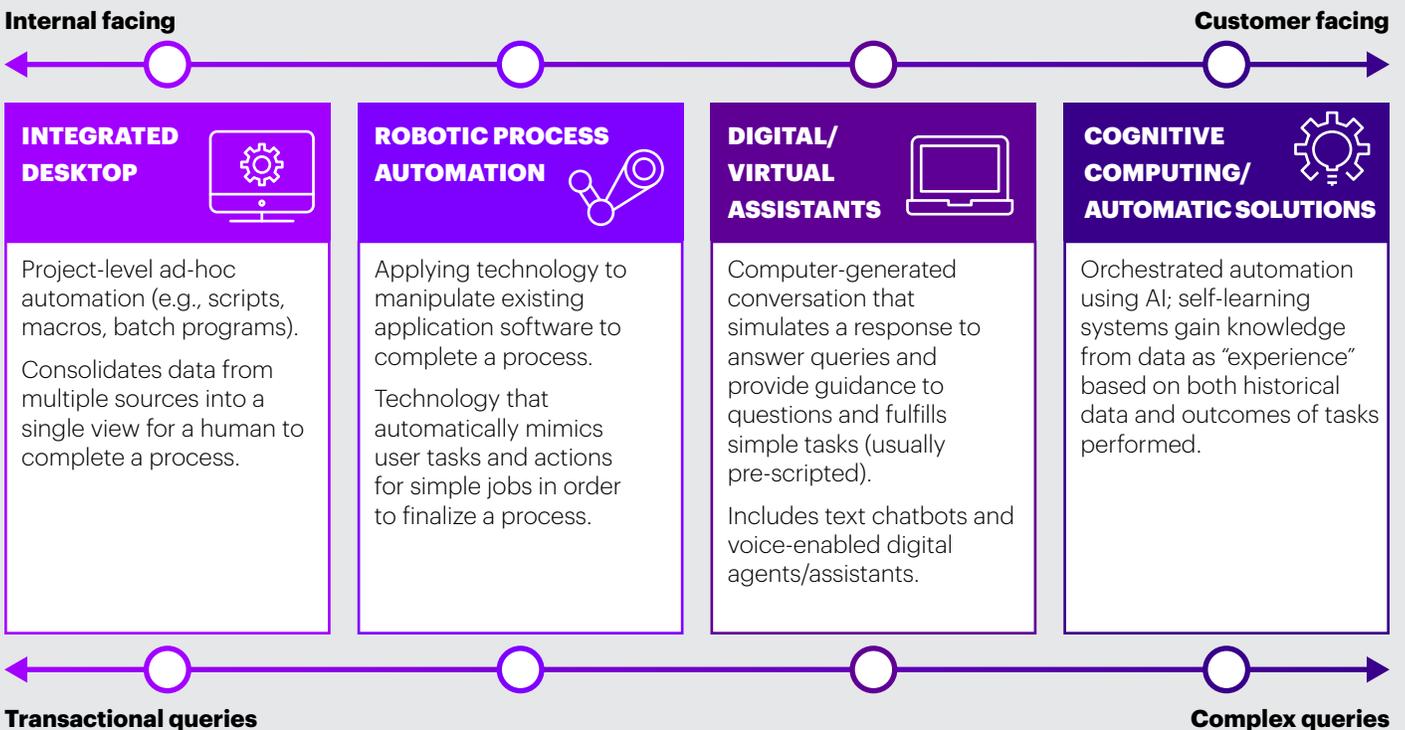
DIGITAL/VIRTUAL ASSISTANTS

These are chatbots or digital assistants that use voice or text/chat software to answer questions and fulfill simple requests. They usually support pre-scripted customer requests, such as checking an account balance or looking up when a payment is due.

4

COGNITIVE COMPUTING/AUTOMATIC SOLUTIONS

A smart assistant that interacts with people and machines, harnessing the power of AI to inform, support and advise. The solutions and platforms leverage what is learned in upcoming situations without the need for human intervention.

FIGURE 1. SPECTRUM OF SERVICE-ORIENTED AUTOMATION.

Internal facing — **Customer facing**

INTEGRATED DESKTOP	ROBOTIC PROCESS AUTOMATION	DIGITAL/ VIRTUAL ASSISTANTS	COGNITIVE COMPUTING/ AUTOMATIC SOLUTIONS
Project-level ad-hoc automation (e.g., scripts, macros, batch programs). Consolidates data from multiple sources into a single view for a human to complete a process.	Applying technology to manipulate existing application software to complete a process. Technology that automatically mimics user tasks and actions for simple jobs in order to finalize a process.	Computer-generated conversation that simulates a response to answer queries and provide guidance to questions and fulfills simple tasks (usually pre-scripted). Includes text chatbots and voice-enabled digital agents/assistants.	Orchestrated automation using AI; self-learning systems gain knowledge from data as "experience" based on both historical data and outcomes of tasks performed.

Transactional queries — **Complex queries**

Source: Accenture analysis.

DEEPER DIVE ON
DIGITAL ASSISTANTS

Bots have recently emerged as a hot topic. Some are even calling them "the new apps." True or not, one thing is certain: chatbots are becoming part of daily digital life and cannot be ignored by any customer-facing business.

Consumers now routinely use AI-driven features, such as digital voice assistants. In fact, an impressive 84 percent of 14- to 17-year-olds use (or are interested in using) the voice-enabled digital assistant in their smartphones.[5] Companies are responding: fewer than six months after launching its Chatbot API, Facebook Messenger announced it had more than 30,000 chatbots available.[6] A wide range of bots exists to help with everything from checking the weather, ordering food and organizing travel. They can even help you play Pokémon Go. Meanwhile, Amazon, Apple, Facebook, Google, Samsung and Microsoft are among the companies collectively investing billions to develop digital assistants on their platforms.

In the past year, many customer service leaders have been conducting chatbot trials internally and externally. Travel, hospitality and financial services organizations are at the forefront. Some are already moving from trials to mainstream use: American Express and Dutch airline KLM are among the first to launch Messenger chatbots for customer service.[7]

A chatbot or digital assistant/agent is a computer program that consumers interact with through messaging apps, chat windows and, increasingly, voice.

Today, chatbots can carry out many of the functions of a mobile app or website, all within a messaging conversation. That means a customer doesn't need custom apps or provider interfaces to engage. What's more, chatbots can perform customer interaction tasks without human intervention.

Consumers—younger age groups, in particular—are rapidly embracing messaging platforms. Usage overtook social media apps in 2015 and these platforms now have the largest numbers of active users.[3] Chatbots increasingly leverage the mass availability of existing platforms like Facebook Messenger.[4] In addition to being highly cost effective, they're faster to deploy across multiple platforms and interactions. Most importantly, Facebook Messenger and other established platforms provide access to the digital spaces where consumers are gathering.

[3] "At your Service: Embracing the Disruptive Power of Chatbots," Accenture, 2017, www.accenture.com.

[4] Messenger, Facebook, https://messengerplatform.fb.com.

[5] "Dynamic Digital Consumers: Ever-changing Expectations and Technology Intrigue," Accenture, 2017, www.accenture.com.

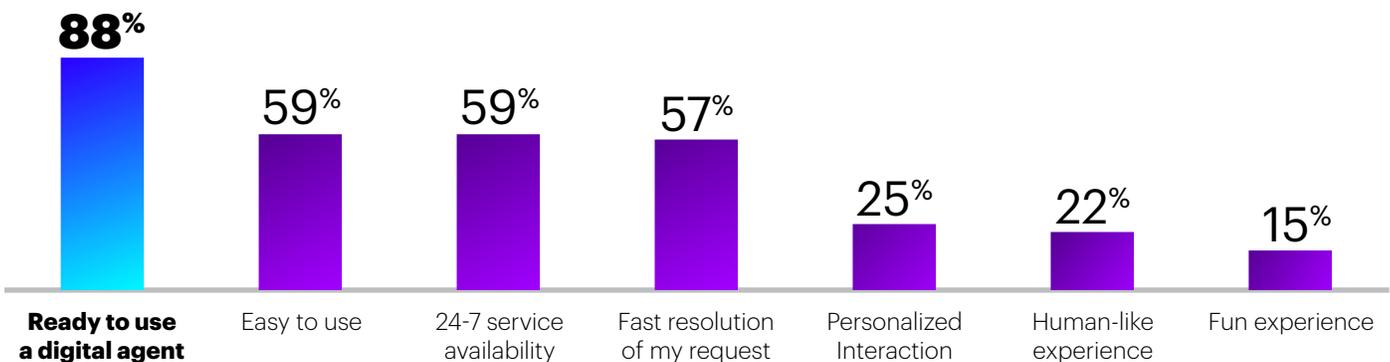[6] "At your Service: Embracing the Disruptive Power of Chatbots," Accenture, 2017, www.accenture.com.

[7] "American Express Previews Amex Bot for Facebook Messenger at Cannes-Lions," American Express press release, June 23, 2016, http://about. americanexpress.com; Enjoy KLM on Messanger, KLM Royal Dutch Airlines, https://messenger.klm.com.

Accenture's latest New Energy Consumer research confirms energy consumers have big expectations and a hearty appetite for digital assistants/agents. Most consumers (88 percent) are ready to use a digital agent. The study also identified the key adoption factors (see Figure 2):

- Ease of use (59 percent), enabling consumers to solve queries and find information or answers even while working on other tasks.

- Availability (57 percent), meaning digital agents should be accessible around the clock and at no cost. This gives consumers freedom to chat when convenient and reduces the need to wait for live customer service agents to be available.

- Speed (57 percent), with consumers ready to engage so long as digital assistants provide rapid resolution.

FIGURE 2. DIGITAL AGENTS: MAKE THEM EASY, AVAILABLE AND FAST.

WHAT WOULD MOST ENCOURAGE YOU TO USE A DIGITAL AGENT (I.E., ARTIFICIAL INTELLIGENCE VIA PHONE OR CHAT) FOR ALL YOUR INTERACTIONS WITH YOUR ENERGY PROVIDER? TOP THREE.

Ready to use a digital agent	Easy to use	24-7 service availability	Fast resolution of my request	Personalized Interaction	Human-like experience	Fun experience
88%	59%	59%	57%	25%	22%	15%

Base: All respondents.
Source: The New Energy Consumer research program, 2017 consumer survey.

PUTTING AMAZON'S ALEXA
TO WORK AT EDF ENERGY

EDF Energy, part of EDF Group, is one of the largest energy companies in the United Kingdom. It supplies around 5 million residential and business consumers with electricity or gas. EDF Energy uses Amazon's Alexa to deliver complex functionality in customer service areas, such as account balance, next payment date, and meter reading submission.

EDF Energy delivers a service channel via Amazon Echo—a hands-free speaker that consumers control with their voices. Echo connects to the Alexa Voice Service to instantly play music and provide information, news, sports scores, weather and more. When consumers have installed the EDF Energy "Skill" on their Alexa-enabled device, consumers can manage their energy accounts by using just their voice. The solution delivers an easy, fast interface that is available 24/7—hitting the trifecta of consumer's key adoption factors.[8]

8 Amazon Echo voice controlled energy, EDF Energy, www.edfenergy.com.

Digital agents are well-suited to use cases that arise frequently and need often similar responses. These high-volume use cases support a business case to automate—delivering significant cost savings by eliminating the majority of manual work in a relatively short time frame. Accenture's research findings show that consumers have clear preferences for digital channels when they're changing personal data (64 percent), obtaining information on new products and services (62 percent) or paying their bills (58 percent). Those types of tasks are well-suited to voice- or chat-enabled digital agents. Another logical way to use chatbots: address customer requests in a specific area where solutions are well known and predictable and scripted answers can be developed. Given the range and maturity level of chatbots, we recommend starting with a highly standardized chatbot and building on your successes.

Accenture's New Energy Consumer research also identified areas with the highest potential for digital agents (see Figure 3): learning about new products and services (76 percent), changing personal information (74 percent) and receiving or paying the bill (74 percent). Activating or deactivating service, reporting or getting information about an outage, and signing up for new products and services also enjoyed high consumer interest for use of digital agents (68 percent for all three).

FIGURE 3. CONSUMER INTEREST IN DIGITAL AGENTS.

TODAY OR IN THE FUTURE, YOUR ENERGY PROVIDER MAY OFFER YOU CUSTOMER SERVICE THROUGH A DIGITAL AGENT (I.E., ARTIFICIAL INTELLIGENCE VIA PHONE OR CHAT). FOR WHICH OF THE FOLLOWING TASKS WOULD YOU BE WILLING TO USE A DIGITAL AGENT? (VERY LIKELY AND LIKELY)

| Task	%
Learn about new products and/or services	76%
Change my personal information (e.g., name, email)	74%
Action my bill payment (i.e., receive or pay bill)	74%
Move in/out home activating/deactivating service	68%
Report or get information on an outage	68%
Sign up for new products and/or services	68%
Ask a question about my bill	67%
Make a complaint (e.g., service level, escalations)	63%
Switch to a new energy provider (deregulated markets only)	59%

Base: All respondents.

Source: The New Energy Consumer research program, 2017 consumer survey.

Interestingly, energy consumers expressed willingness for digital agents to support not only informational and transactional tasks but also more advanced processes. More than half would be willing to learn about and sign up for new products and services with digital assistance. Nearly 70 percent would be happy to do it via a digital agent. We see this trend taking shape across industries, where digital agents are moving beyond transactions to help sales and marketing teams work more quickly and effectively. One example is Kit—the business-facing virtual marketing assistant

9 Kit, https://kitcrm.com.

purchased by Shopify. Kit leverages messaging platforms to help companies market their online stores. Among Kit's capabilities: sending email campaigns, posting updates and running ads on platforms like Facebook and Instagram.[9]

Between their ability to meet consumers on their terms and the increasing ease of implementation, digital agents are set to disrupt energy consumer interactions. In fact, Accenture believes well-executed chatbots could be the latest "killer app" to accelerate the shift from traditional to digital channels.
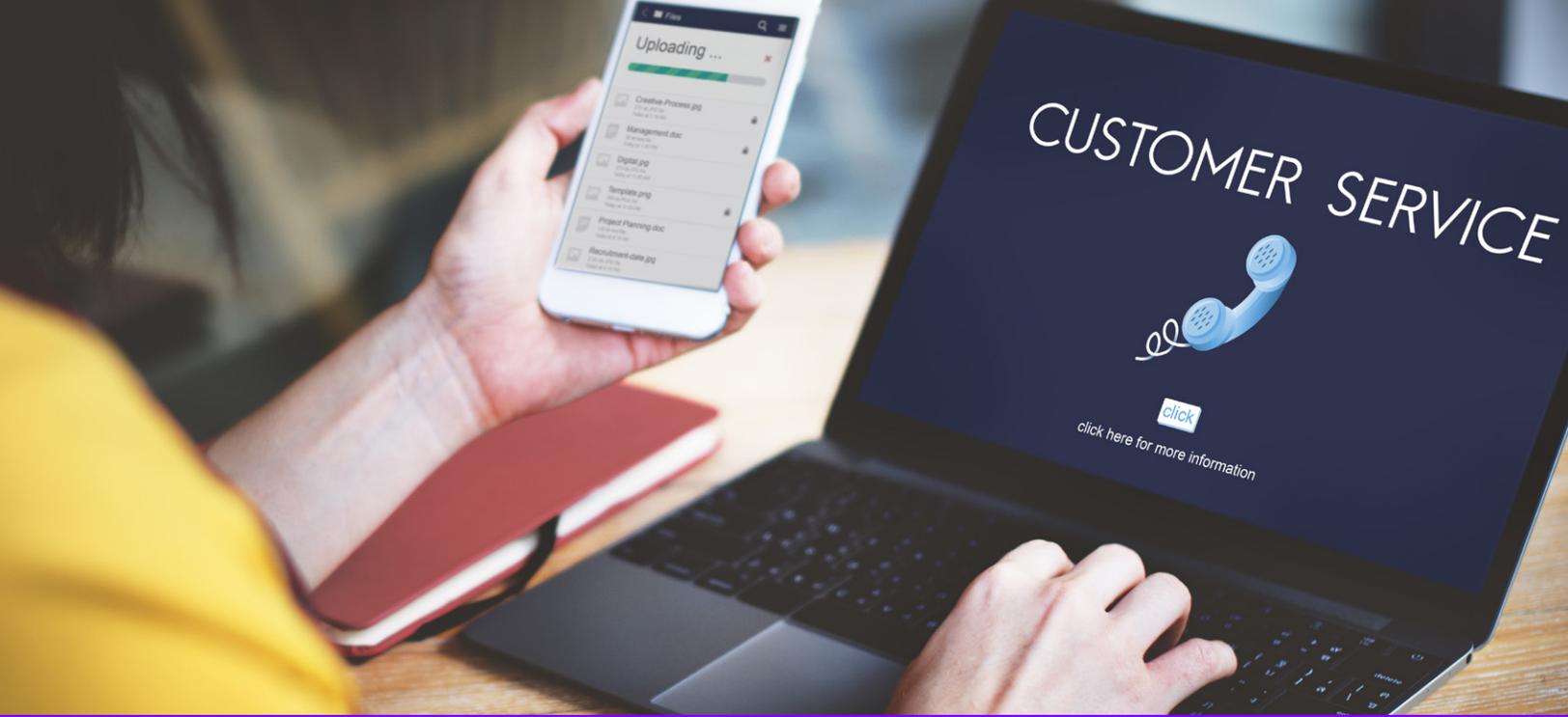
STAY **ON TARGET**

Automation can drive significant improvements in front- and back-office operations. Here's how:
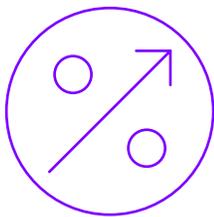
AUTOMATING BUSINESS OPERATIONS FOR VISIBLE EFFICIENCY GAINS.

Robotic process automation can reduce costs by 25 to 50 percent, since the cost of a robot is typically about a third of the cost of an offshore full-time employee and a fifth of an onshore full-time employee.[10] Digital agents are able to read and write directly into back-end systems via APIs or robotic process automation.
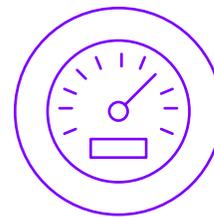
CUSTOMER INTERACTIONS AT TWICE THE SPEED AND A FRACTION OF THE COST.

Call deflection can be improved by 50 percent. With digital agents as the first point of contact, only complex problems are escalated to agents. Meanwhile, average handling time can be improved by 25 percent, as digital agents can search and find answers more quickly than humans. Digital assistants can also conduct up to a million conversations simultaneously. That, in turn, improves staffing optimization by 60 percent, freeing staff to deal with complex customer issues and higher-value work.[11]

A large European bank using automation for IT Service Desk Assistance achieved an initial 30 percent successful resolution rate, which grew to 60 percent after only three months. A European landline and mobile telecommunications company uses digital agents in real time to drive superior customer service at a radically lower operational cost. Among the successes: 80 percent of interactions are now handled entirely by digital agents, and 30 percent of inbound calls are deflected.[12]

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10 Definition and Benefits, Institute for Robotic Process Automation & Artificial Intelligence, www.irpaai.com.
11 Accenture analysis based on leading practices.
12 Ibid.

DO. OR DO NOT. THERE IS NO TRY.

Meeting the needs of the new energy consumer will require energy providers to undertake a radical shift in service delivery—from human-driven processes aided by technology to technology-driven process supervised by people.

Digital agents are becoming an increasingly important part of the digital customer service mix, and chatbots promise to be an important force as energy providers work to accelerate the adoption of digital tools and channels. They should play a role in an energy provider's digital customer strategy—both to meet the rising customer expectations of today and to position the provider for tomorrow as AI technology continues to unfold.

To fuel success in implementation and adoption, energy providers can take measured steps in the near term to launch successful plays:

STAY IN THE KNOW. Bots are no longer the stuff of science fiction. Get familiar with how bots, and chatbots in particular, are being used today—not just in the utility industry, but also in the other places where customers encounter them. Keep one eye on what's happening now and the other on what's around the corner. Accenture is already observing trends that suggest personalized digital agents will soon

enhance the customer experience. How? By leveraging historical data and self-learning capabilities to understand the individual user and then offering tailored services or making custom offers in real time.

GIVE IT PERSONALITY. Experience from early adopters has shown that giving a digital agent a personality is critical. Based on the persona, human-centered conversation design will be key to customer adoption. Personality, tone of voice and the styling of the interface are all elements that require thinking and testing with an energy provider's target audience.

RUN A PILOT TO "FAIL FAST, WIN BIG"—WITH A FOCUS ON CONVERSATION DESIGN. Pick a set of use cases to trial. Completing a task through a digital agent inevitably requires some effort from customers. So, interactions need to be as efficient and painless as possible. Run the pilot alongside experienced human agents so they can train the chatbot, handle more complicated scenarios and fine-

tune before large-scale implementation. This artificial-human symbiosis will be essential in creating chatbots with empathy and emotion.

SEE WHERE DIGITAL AGENTS CAN LEAD. To be a "killer app" that shifts interactions to digital channels, chatbots need to be positioned as a leading tool within the overall customer experience. A service design process helps in understanding the customer service journey across different channels—and identifying high-potential areas for chatbots to address real customer needs and drive adoption.

MAKE IT SEAMLESS. Confirming that simple interactions and tasks are completed seamlessly is critical—customers will quickly turn away from chatbots that can't comprehend straightforward questions. Integrate the chatbot platform seamlessly into the application landscape—from both front-end and back-end perspectives. A chatbot service also needs to be fully integrated into mobile and web services.

THE FUTURE IS NOW

Accenture's latest Technology Vision report asserts that, in just a few years, most customers will select services based on a provider's AI brand—not its traditional brand. Further, Accenture predicts that most interfaces will no longer have a screen and will be integrated into daily tasks. And within a decade, we believe digital assistants will be so pervasive that they'll be helping employees increase productivity 24/7/365. They'll be operating in the background during workplace interactions, doing things like creating video summaries right after an important meeting.[13]

In short, automation and virtual agent technologies are moving fast. For providers in the new energy ecosystem, there is no "try." Now is the time to do: explore the possibilities, make the investments and then use the bots to delight customers—and deliver against key goals.

13 "Technology Vision 2017," Accenture, 2017, www.accenture.com

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