



Digital customer care in the age of AI

Energy services providers
must reduce the cost to serve



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Reduce call center costs with AI

The previous whitepaper on [Digital customer care in the age of AI](#) focused on the need for utilities to adapt to rising customer expectations to get answers quickly, at any time on any channel they chose, so they can move on quickly with their lives. When paired together, customer engagement analytics and AI-infused virtual assistants called chatbots, can help provide a superior level of personalized customer service when and where your customers want to communicate. In this white paper, the focus shifts to using AI to reduce the cost to serve to assist not only customers but contact center agents, as well.

Utility companies typically work with a traditional, dedicated call centers to handle day-to-day customer queries, but using this model is ineffective and expensive. While resolving customer queries, these agents spend most of their time searching through multiple existing systems that function as silos, increasing the average handling time resulting in frustrated and disappointed customers. On the other hand, the increased effort in solving customer questions often results in higher costs, a pressing issue with contact centers today.

At the same time that utility companies are working through the cost-benefit questions, they have the customers' expectations of customer care. These customer expectations are changing and becoming more demanding, driven in large part by millennials and, going forward, by Generation Z consumers. They're constantly connected and inhabit an online environment where events happen in real time or with 24x7 messaging without them having to wait. Conversely, these demographics are exactly the ones that are most open to the new, improved customer care scenarios that AI enables. AI-powered chatbots can take customer service to the next level. The deep data insights generated by AI-powered chatbots, using a conversational interface, enable a highly interactive, personalized form of engagement with customers or an alternative means to get them to the right person with the right answer more efficiently. AI-powered chatbots can support one-to-one automated conversations with customers at scale. They can tap into and create very detailed customer data sets and use them to understand customers' exact behavior, anticipating their needs and intent.

According to Gartner:

- 91% of organizations are planning to deploy AI within the next three years.
- By 2030, a billion service tickets will be raised automatically by customer-owned bots.
- By 2030, personal technologies will become the go-to for user experience delivery.¹

Customer perspective:

Energy service providers are trying to make customer care more efficient and cost-effective through digital self-service models. Customers today exhibit high degrees of technical literacy and an innate ability to aggregate information online. The impact on the contact center is that customers are increasingly well-informed prior to making contact for assistance. These highly knowledgeable customers put pressure on the agent to be equally well-informed and able to deal with advanced topics to avoid statements, such as “but *your* website says this...”. Before interacting with an agent, it's now common for customers to have already visited the website but couldn't they find all information they were seeking. As a result, the agent interaction is becoming increasingly complex for sales, servicing and support. Furthermore, since the interaction started on the web, it most likely also started on a mobile device. This assumption implies that the preferred channel is digital, yet many organizations are still forcing the customer to then revert to the nonpreferred voice channel. In addition, only a few organizations are already aware of the web interaction that the customer has already had before calling.

19pt

delta in customer satisfaction
between traditional (57%)
and digital (76%) interactions.¹

Ideally, the customer wants to avoid calling unless they require more complex interactions with your organization. Even then, digital interactions, for example, messaging, are preferred. For the voice channel, this means anything over a 30-second hold time is considered poor service.

The *relative perception of time* is a key input into the residual, emotional feedback on the experience. Interactive voice responses (IVRs) today are largely touchtone menu trees and can handle voice commands in a very limited capacity. In the not-too-distant future, it will be unusual to interact with an IVR. They will cease to exist, having been replaced with the capabilities of an advanced AI chatbot that uses natural language processing (NLP) and predictive analytics. The conversations will go something like: “Thanks for calling XYZ Utility. Your payment has been received and your account will be updated tomorrow morning. Is there anything else I can help with today?” And it will be a highly unusual experience to be put on hold.

Energy, water and gas providers are responding to this digital shift with agility. The increasing use of digital transformation put the pressure on utilities to standardize, integrate and globalize with a vision to meet the dynamically accelerating customer demands. The industry is responding to the pressure with bold executions and rapid implementation models to meet the growing demands. Advanced digital self-service platforms based on AI and machine learning (ML) and the Internet of Things (IoT) analytics are contributing to the change. Proactive communication and quick resolution of critical and noncritical queries drive transformation for the next-generation utility industry.

Long gone are the days when customers would call the contact centers to receive outage details or get their usage and consumption queries resolved. Today, contact centers in the utility industry have been able to initiate proactive measures while digital self-service provides most information to the customers, helping in the reduction of high call volumes.

90%

of consumers expect a brand or organization to offer a self-service customer support portal.²

Customer experience (CX) has been the key to building stronger relationships with customers and provide better service. As such, AI, ML and IoT-based digital tools that provide personalized communication to customers and help them become self-reliant have become more of a necessity than a novelty. Exploring the possibilities, we have digital CX platforms, such as Smart Customer Mobile (SCM) by Smart Energy Water (SEW), that provide a number of services. These services include self-service capabilities, support for real-time two-way communication between the utility business and their customers, and multichannel communication options for the customers to interact with the utility. Furthermore, it uses and analyzes huge amounts of customer data by employing AI and ML algorithms to predict customer pain points and address them with actions tailored to a particular customer's needs. It delivers a 360-degree view of the entire customer journey, which helps customer service representatives (CSRs) engage in more complex, personalized conversations with customers. This ability has helped utilities witness a stark decrease in inbound call volumes and customer service costs while delivering fast time to value for ongoing innovation and improved services.

Connecting the entire field service management value chain digitally is Smart Energy Water's Digital Workforce Experience (WX) platform. Smart Mobile Workforce (SMW). SMW helps utilities and energy service providers improve productivity and efficiency of field personnel by providing job, safety and asset-related information in real time. Empowering field service personnel with intelligent decision-making tools and skills, SMW drives real-time visibility into workforce operations to build a connected ecosystem and improve organizational efficiency.

The dynamic pace at which customer behavior and expectations are changing has given rise to a need for rapidly responsive digital business models. While maintaining the stability of critical business operations and underlying systems, leading companies, such as IBM and SEW, are working together to enable quick and reliable digital CX solutions that respond to critical customer needs. To this effect, the Rapid Deployment Business Model helps ensure faster implementation with seamless integration that caters to contemporary customer needs and recalibrates customer service delivery in contact centers. This model is proving to be a boon for the energy and utility service providers who are quickly realizing the importance of quick, module-based delivery for achieving their goals in CX transformation.

Customer spotlight: Achieving digital transformation with Southwest Gas

The challenge:

Southwest Gas (SWG) teamed with IBM and SEW to deliver digital customer experiences and enhance utility customer communication. It was looking for a solution that would provide the utility with a 360-degree view of its customers, including new mobile experiences through seamless omnichannel interactions, such as short message service (SMS), email, push notifications and robocalls. SWG also wanted to empower its customer service agents.

The solution:

SEW adopted the trusted CX platform, SAP Self Service Accelerator (SSA) for Utilities by Smart Energy Water. SSA is a highly reliable industry solution that delivers rich capabilities by using cutting-edge technologies to help solve SWG's existing problems, position it to take advantage of future growth opportunities and limit the impact of any upcoming disruptions.

Results:

- In less than a year of going live, over 5.65% (>millions of \$) savings on customer care expenses
- **9,677,551** proactive notifications sent across multiple channels
- **114,000+** total app downloads
- Complete transformation of the customer journey and experience
- **High** customer satisfaction with 5-star ratings on the App Store

The CX platform deployed by SWG is a leading energy and water CX platform that's rated highly by customers. This result illustrates that customers appreciate the ease of use provided by the 100% self-serve SWG platform as it addresses key customer challenges and creates a robust and scalable business model.

Agent perspective:

The contact center is one of the most instrumented and metricized working environments, designed to measure the labor cost of time, average handle time (AHT), rather than the potential value in the customer contact. This phenomenon has driven counter-productive behavior, such as foreshortening the call, creative use of information and weak customer relationship management (CRM) and case documentation, including misuse of after call work (ACW) time. Such factors impede the ability of the organization to maintain customer intimacy, maximize revenue—next best offer (NBO) or next best action (NBA)—and prioritize the service experience, net promoter score (NPS).

In the past, agents would receive a mixture of relatively simple inquiries and more complex, difficult or stressful inquiries. Often contact centers then have a tiered system, with more complex inquiries handled by more experienced and thoroughly trained level 2 or level 3 staff.

3.4x

Winning teams are 3.4x more likely to completely empower service agents.³

However, as a result of self-service initiatives, agents are increasingly handling only the latter category of inquiries. This process has the potential to increase call handling times to increase stress and the already typically high rate of staff turnover. This issue, in turn, results in more new staff who are inexperienced in handling the inquiries specific to the organization, leading to reduced customer satisfaction.

80%

Nearly 80% of customer service centers say their current customer service systems won't meet their future needs.⁴

Across all industries, employee engagement is known to improve productivity; according to a [Gallup](#) study highly engaged employees show 21% greater profitability. Further, this demonstrates that invested employees may help drive and improve the client experience, contributing to increasing customer satisfaction levels and higher levels of attrition.

While there are multiple factors identified to employees becoming satisfied, and then engaged and inspired, they need to have the tools and training to do their job effectively. They also need to have opportunities to learn new skills and make a positive impact by solving problems for customers.

In response, contact centers have ramped up attempts to support their agents. Often, this commences with efforts to provide more detailed information on an intranet knowledge repository. While an improvement, use of this additional information is stymied by a difficulty in *finding* the information.

Approaches to tackle this challenge have included:

- Ongoing reauthoring of content for agents
- Automation to reduce “rekeying” into multiple systems
- AI-powered chatbots to provide real-time agent guidance
- Providing collaboration tools for agents
- 360 views of clients

In response, contact centers have ramped up attempts to support their agents. Often, this commences with efforts to provide more detailed information on an intranet knowledge repository. While an improvement, use of this additional information is stymied by a difficulty in finding the information.

Approaches to tackle this challenge have included:

- Actively deflect calls to messaging when customers prefer to be served in digital, where customer satisfaction (CSAT) and efficiency are the highest.
- Identify top intents driving your volume and develop a roadmap to enable them with AI, with seamless agent handoffs as needed.
- Use asynchronous messaging to move beyond “the session” to enable services on customers’ timetable, with up to twice the efficiency over voice.
- Use real-time sentiment analytics for the optimal CX, such as human-bot tango, personalization.
- Add an AI-powered chatbot to help agents speed up knowledge search for complex inquiries.

Studies show that the average cost per customer service interaction over the phone ranges from \$5 to \$12, whereas virtual agents bring that number down by 80% to about \$1.55 per interaction.



Customer spotlight: North American Telecommunications agent assist

The challenge:

Like any large communications provider, this NA telco invests a lot in customer service to keep customers satisfied. The company's customer care and sales group is always looking for ways to increase efficiency and reduce costs. The team shined a light on its knowledge management approach, which was weighing down key metrics, such as average handling time and first contact resolution rates. To look up information, customer service agents relied on the customer systems handbook—essentially a binder of printed documents. They also used an electronic knowledge management system from a third party, which was expensive and prone to frequent downtime. The customer care and sales group wanted an advanced knowledge management solution that could minimize the amount of time agents spend searching for answers to customer questions, increase the consistency and accuracy of their responses, and flatten the learning curve for new agents.

The solution:

Working with IBM® Global Business Services® division, the NA telco built a large-scale, next-generation knowledge management solution based on IBM Watson® technology. The Watson™ solution provides a single source of information not only for the customer care and sales group but also for seven other organizations across the enterprise—a total of 10,000 users. The Watson platform offers natural language processing (NLP) capabilities to make it easier for employees to find information without prior specialized knowledge.

For the customer care and sales group, the Watson solution offers an intuitive way to look up information while on the phone with customers. Agents simply type in a natural language query and receive ranked search results tailored to the situation—a significantly faster and more reliable way to find answers than the binders they previously consulted. Between 5,000 and 6,000 agents access the knowledge management solution.

Results:

- Reduced costs by USD 9 million by improving employee efficiency an average of 10% and eliminating licenses of previous knowledge management systems
- Helped reduce average handling time by 15% within the customer retention team by enabling faster access to information
- Supported publication of 1,200 documents and more than 200 customer service bulletins, delivering fresh and reliable content to employees

The AI, ML and advanced data analytics-powered Smart Customer Mobile (SCM) platform can be used by contact center agents to maintain business continuity even as remote working in customer service centers become the norm. With its customer 360° view, agents have a single interface for customer engagements and preferences across multiple touchpoints. The platform helps organizations reduce call center volume and interaction costs by providing a unified user experience. Agents can address customer queries, provide proactive information to target segments using the platform's CRM capability and track the customer journey through tailor-made reports for better decision-making.



Ensuring CX success with cognitive care as a service

For utilities, the need to reduce cost to serve and improve revenue streams has never been greater, but the costs and effort to implement these solutions is also critical. Many companies have experimented with AI—specifically chatbots—and introduced new digital channels like messaging. Some have successfully deployed it at scale. But the majority of contact centers in utilities are still voice-heavy although a big shift in channel adoption is expected.

Furthermore, for some companies the investment in AI and messaging didn't yield the returns required to trigger a sustainable transformation towards the new digital channels, which was mainly due to lack of an overall transformation and transition strategy. Hence, having a clear channel and automation strategy is key to succeed in the future. Recognizing these challenges, IBM has created an AI service for cognitive care that's focused on optimizing customer satisfaction and lowering costs while reducing risk for the utility.

Automation First



Establish an automation first strategy that allows you to free up capacity in your contact center

Omni-Channel



Step up the customer experience across all channels

Pay for success only



We set up and operate the solution for you and charge only for successfully automated cases

The approach will redefine your customer service model with a focus on automation and optimizing the user experience to reduce costs, increase revenues and improve customer satisfaction. During a short due diligence phase, the right measures will be selected to achieve the business outcomes. From there, IBM will propose a transformation roadmap and offer the flexibility to execute through different commercial models, from traditional fixed price, time and material to a pay-for-success model. Using the pay-for-success model, IBM will set up and operate the solution for you and charge only for successfully automated use cases.

The cognitive care as a service solution is implemented with iterative deployments and the platform is stabilized by continuously monitoring customer satisfaction and efficiency levels. Based on the implementation plan, the solution is developed. Use cases are deployed based on maximizing the return on investment (ROI). The new way of operating physical agents is established together with the virtual assistant of each channel. The platform is operated to help ensure the continuous evolution of the selected use cases so that the customer experience is improved, and efficiency ratios are increased. Once the production solution is fully deployed, the experience of each use case is monitored and improved. A continuous cycle of analysis, identification of virtual assistant improvement points and implementation of evolutionary experience to maintain and increase efficiency is performed. New use cases are identified that should be proposed for future implementations.

Customer spotlight: Endesa's Cognitive Contact Center as a Service

Endesa:

newsroom.ibm.com/2019-05-15-Endesa-taps-IBM-Watson-and-IBM-Cloud-to-deliver-superior-Customer-Service-through-its-AI-Contact-Center

Cognitive Contact Center as a Service:

The challenge:

This large energy retailer in Spain decided to transform its contact center with a clear business objective of reducing cost and increasing NPS.

The solution:

Endesa decided on an IBM technical solution based on best-of-breed technologies, with core Watson services, Watson Assistant and IBM Watson Speech to Text (STT). The solution was complemented with specialist services from Nuance Text to Speech (TTS) and a multicloud integration with customer systems, Salesforce CRM, Genesys telephony systems and Siebel CRM information systems. Now, all the interactions from the customer under the contract scope are automatically resolved by Watson technology in natural language over the phone or chat, avoiding the intervention of a human agent.

The commercial model:

IBM provides this innovative solution to our customers as a service. It means that IBM charges a unit fee for every customer interaction that's correctly solved by Watson without the intervention of a human agent.

Results:

- 90,000 monthly calls and contacts from clients transferred to Watson
- 55% of finalization success rate, without any human intervention
- 40% savings, compared with human costs, in a pure outcome-based model

Conclusion:

AI, self-service and CX

As you can see, customer expectations are changing—and fast. As with all other organizations, utility companies need to make significant changes to keep up with customer demands with the help of the latest in technology.

Utility customers want to be able to easily access their accounts, make payments, seek savings opportunities, have an open communication channel with their providers and more. But they don't want to search for it—they expect these services to be delivered to them with convenience and ease. And, with so many people attached to their computers and cell phones, there's no better way to provide them with the self-service opportunities they crave than through the convenience of their devices.

When you combine powerful AI with self-service capabilities, you empower customers and your contact center agents with actionable information that only enhances customer experience. Such capabilities allow utility companies to provide hyper-personalized services while minimizing their operational costs.

In the global energy and utility industry, AI offers a multitude of benefits that supports energy transition and an environment-friendly energy system. For example, through integration with smart home tools and electric vehicles, customers can view the status of their smart technologies, as well as vehicle requirements. The advent of this intelligent ecosystem proves that it's time to embrace combining the strengths of human insight and intuition with the AI world to identify opportunities that lead to the development of smart cities and communities. With Smart Energy Water's rapid deployment customer and workforce modules and IBM's cognitive care as a service, there's never a better or faster way to get started.

To learn more about digital customer care in the age of AI, visit ibm.com/industries/energy/customer-service-solutions-utilities.

Smart Energy Water (SEW) aims to deliver the best digital customer and workforce experiences, AI, ML and IoT analytics to global energy, water and gas providers on innovative and industry-leading cloud platforms. SEW strives to increase conservation efforts by engaging, empowering and educating millions of people to help save energy and water through digital self-service platforms.

To learn more about our digital platforms, visit sew.ai.



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