



# The three A's of Customer Care

How analytics, automation  
and artificial intelligence  
are changing everything

# Customer Care: a time for change

The traditional model of Customer Care has been in place for a long time, and has seen little change.

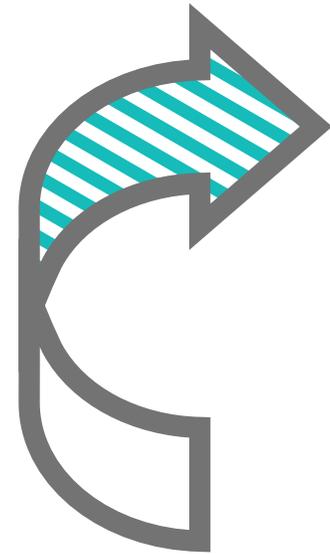
It was a straightforward solution for a simpler world: single channel, voice-centric and firmly focused on transactions. You set up a call center, staffed it with customer service agents and opened for business. You set yourself KPIs and put metrics in place, then you monitored and measured regularly.

And the customer in all this? Well they often came off a poor second, because the model was focused on transactional management and pushing down costs. In other words, hitting the numbers.

No prizes for guessing the result of this cost-and-numbers paradigm: indifferent service, undervalued customers, demotivated staff, customer and agent churn. Rising costs and falling service levels.

Then, just to make things even more complicated, the market changed beyond all recognition: tough economic times, an omnichannel world, rising customer expectations, and increased competitive pressure.

Something had to change.  
[And now, finally, it has.](#)



# The three A's to the rescue: analytics, automation and artificial intelligence



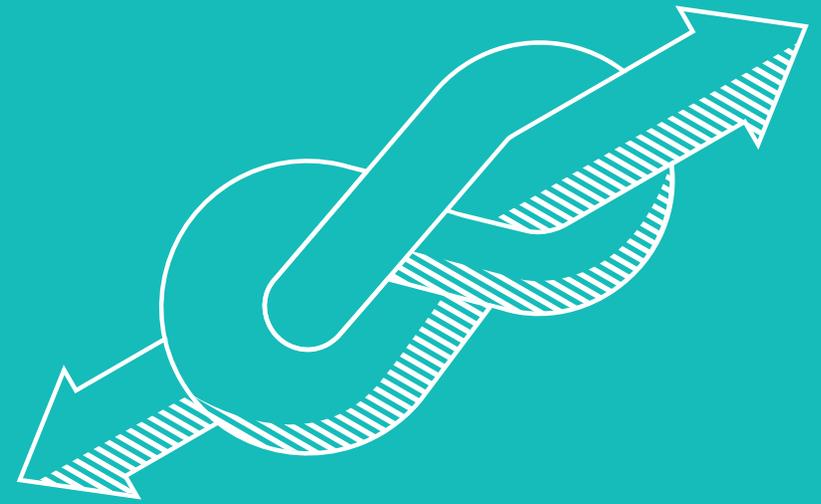
Customer Care is on the brink of something big: a major step change that will take it to the next level and transform it forever.

We like to think of it as 'Next Gen Customer Care.' This new, improved model of Customer Care is made possible by analytics, automation and artificial intelligence (AI). And it's going to bring big benefits to organizations, letting them:

- **Cut costs and deliver better service**, by doing more with less and maximizing all available resources.
- **Meet the omnichannel challenge**, by being everywhere their customers are.
- **Deliver a consistent experience at every touchpoint**, thanks to joined-up, intelligent systems that learn and grow.
- **Maximize customer satisfaction** at minimum cost.
- **Reduce customer and agent churn**, as both feel more special and more valued.
- **Move from transaction to relationship management**, focusing on customer lifecycle management and lifetime value.

# Five big problems for Customer Care

(which the three A's can help you solve)



**1 It's commoditized.** With everybody doing the same thing, Customer Care has become commoditized, leaving you with no way to differentiate yourself in a crowded market. And let's face it: cost-cutting is a rush to the bottom that never ends well. For anybody.

**2 Customer service agents are locked into a paradigm** of repetitive calls, no room for improvement or learning, a limited career path, monotonous work, with no incentive to do better – and no tools to do it anyway.

**3 Metrics are holding you back**, because they force you to measure the same old things over and over again. Yesterday's stats for yesterday's model. And they leave no room for innovation because the stats would suffer.

**4 Processes lag behind**, as calls are dealt with sequentially and issues solved one at a time by trial and error. And all this in a world where customers are moving beyond voice and interacting with you in all sorts of other ways (web, self-serve, social media, etc.).

**5 Systems are complicated and not joined up**, which means agents have difficulty finding information and face a very steep learning curve. The complexity sometimes makes them appear slow, inefficient or even unconcerned to customers. Call times are extended and problem resolution is complicated.

# Analytics

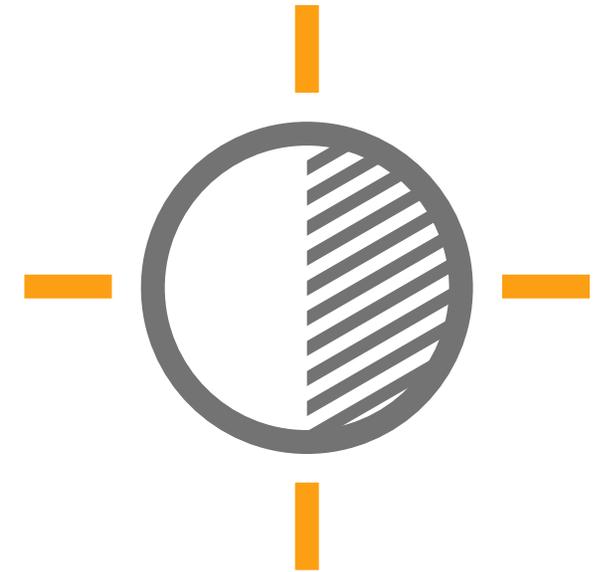
## Get closer to your customers

People have been talking about Big Data forever now, and you could be forgiven for thinking we made a Big Deal over nothing. But that's far from the case, as analytics become more powerful, helping companies really understand the customer and get ever closer to them.

We're seeing analytics everywhere when it comes to Customer Care: from basic transactional reporting to sophisticated predictive models.

**Speech and text analytics** are making some really exciting things possible.

Call centers have been recording calls for a long time, but usually just for 'quality and training purposes'.



Those calls are a goldmine of useful data that has simply gone to waste. Now, analytics are making it possible to take that data and put it to good use. Technology can convert speech to text, then analyze what people are saying, identify trends and spot opportunities.

**Just imagine being able to react in real time** to what's happening out there, based on detailed contextual analysis of thousands of calls. You could swing from reactive to proactive mode. You could counter competitive threats. You could jump on hot topics and ride the wave of success before anybody else got there.

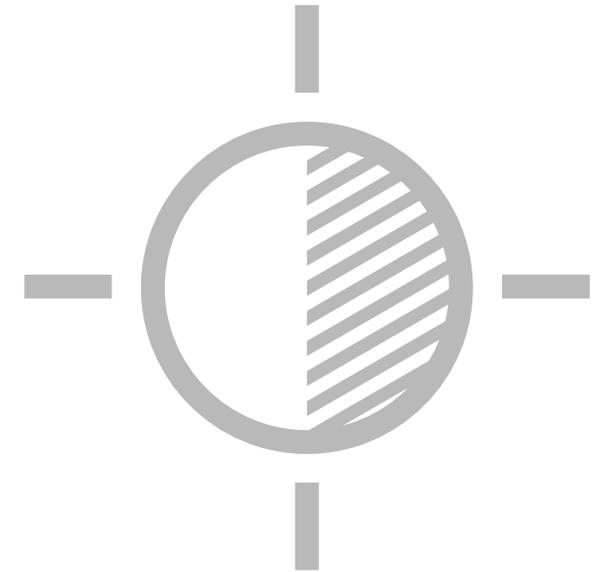
# Analytics

## Get closer to your customers

**Social media analytics** are also becoming very sophisticated, letting you quickly see trending topics, customer sentiment and breaking issues. This technology empowers agents to focus on influencers, quickly intervene and defuse potential issues.

But there's more. These analytics will give you amazing insight, letting you:

- **Understand customer needs and behavior**, and more importantly, predict them.
- **Make informed decisions** using the VoC (Voice of Customer).
- **Cross-sell and upsell**, as detailed profiling gives you more opportunities to improve personalization and connect with your customer.



These powerful new analytics are finally delivering on the promise of Big Data, and will bring big benefits to Customer Care.

# Analytics in action: call deflection saves \$6.8m

## Challenge

Find cost savings in Customer Care for a wireless carrier without affecting quality levels.

## Solution

Technology and analytics were deployed to understand the customer journey, and to find and remedy root causes of issues. This identified the top customer issues and prioritized those that could be effectively handled through self-care.

## Results

Digital self-care saved \$6.8m in call deflections.



Ask the expert

# Nick Gyles, CTO Xerox Analytics

## Social media monitoring

### **What are the challenges of social media monitoring?**

Traditionally social media monitoring has used a lexicon-based approach, looking at keywords. But with the massive explosion of unstructured data through not only Twitter and Facebook, but also blogs and forums, it just becomes a much more difficult challenge.

Now we're looking at machine learning approach where we're statistically analyzing the contents of everything that's coming through, looking at sentiment and classification of topic. This allows a much more granular level of accuracy than you get through traditional mechanisms.

### **Is this more scalable than the work already done by corporate social media teams?**

Absolutely. It goes beyond just Facebook and Twitter. As we get that explosion in the number of places and the volume of comments, you can't just keep on adding more and more people to monitor all the different channels.

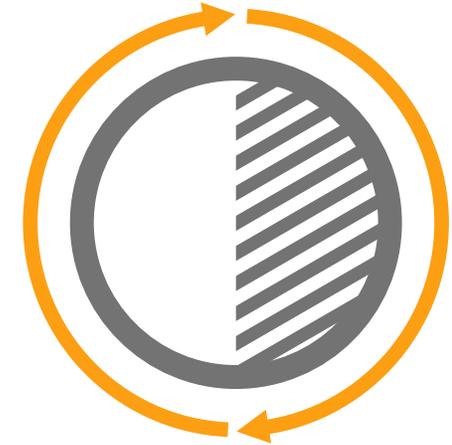
What social media monitoring tools allow you to do is aggregate a much wider monitoring approach by scaling through machine learning.

### **Does this give you a 360-degree view of the customer?**

Yes it does. There are a huge number of other unstructured data sources within an enterprise and a brand. The great thing is, we can now handle all of those, bringing in data from call center logs and from any other customer transactions. We can perform the same level of analysis and get the same level of sentiment and topic indexing out of those data sources.

# Automation

## Lighten the load and power your people



Customer Care has rapidly become complex and multi-faceted, stretching resources to the maximum. But automation can and will change this, and is available at all levels for everybody involved.

Customers can use sophisticated self-service and collaboration tools that take the burden off customer service agents. Organizations can use powerful management tools to analyze performance and track quality.

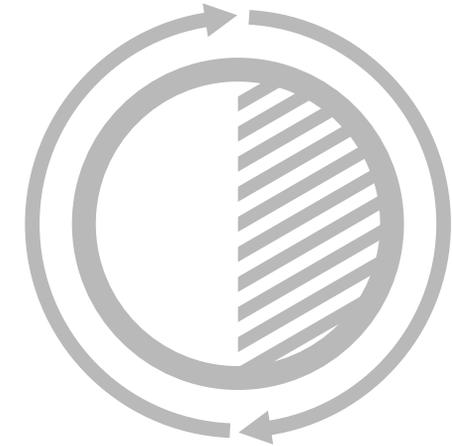
The call center itself now has intelligent management and routing technology to optimize resources and streamline call resolution.

Customer service agents can now use systems that learn and grow from human interaction, providing them with fast, accurate answers to customer queries. As each issue is dealt with, the path to resolution is refined and shortened, so that the next query can be solved even faster.

But it doesn't stop there. All of this 'tribal knowledge' that's built up by agents is not only available to all other agents, but to self-serve systems as well. These systems listen, learn and improve over time, using one of the other A's: artificial intelligence.

# Automation

## Lighten the load and power your people



All of this opens up some really exciting possibilities, including automated resolution of routine issues, freeing up customer service agents to deal with more complex, challenging and even revenue-generating tasks.

Those more complex issues also get simpler, thanks to technology that effortlessly brings together multiple systems into a single interface, giving agents information at their fingertips.

This simplification can mean a 50 percent reduction in training costs, a 30 percent reduction in call time and the virtual elimination of after-call documentation. Even better, it increases customer service agent job satisfaction and reduces attrition.

All of this automation brings with it some big benefits:

- Improvement in internal processes
- Lower costs and higher margins
- Easier and cheaper scalability
- Improved customer satisfaction
- Better use of customer service agents

It's a truly virtuous circle, with humans and machines working hand in hand and organizations doing more with less.

# Automation in action: Intelligent call routing brings a 14 percent increase in value per sale

## Challenge

Hit sales targets for outbound telesales. Much of the activity uses customer data bought in from third-party providers, which includes demographics and other information.

## Solution

Intelligent call routing looks for patterns in call success rates e.g. calls to some demographic groups that are more successful at particular times of the day, or an agent who's more successful with a particular group – older people, city dwellers or women.

The system is self-learning, watching for new patterns emerging and changing rules as the data changes. It then uses this information to decide when to call different customers and which of the free agents to assign them to.

## Results

Increased call conversion rate of 12-30 percent and 14 percent increase in value per net sale.

Ask the expert

# Guillaume Bouchard, Senior Scientist, Xerox

## Machine learning

### **How exactly do machines learn?**

Every time you interact with a customer, you learn something. You learn from the steps you go through to help them: understanding what they're asking, then deciding what to do next, until sooner or later you provide an answer.

The more you go through these steps, the more experienced you become and the better you are at answering questions. By capturing these steps, you can teach a machine to learn like a human – from experience. It's called [machine learning](#).

### **And what are the implications for Customer Care?**

In Xerox Research in Europe, we're using machine learning to capture everything that is learned in real time from all customer interactions. Having all this knowledge combined in one place means that we can answer the entire set of existing problems in a consistent fashion, regardless of how the customer engages with you.

### **Does machine learning mean generic, impersonal service?**

No – quite the opposite.

Because we continually learn from every individual exchange, we get to know each customer better and better. We then use this knowledge to personalize the interaction we have with them.

And it's not just interactions with human agents. It's also interactions with automated self-serve systems, which adjust to the person they're helping.

# Artificial intelligence

## Take it to the next level



Perhaps the most exciting of the A's is artificial intelligence. It's the technology behind some of the automation we talked about earlier.

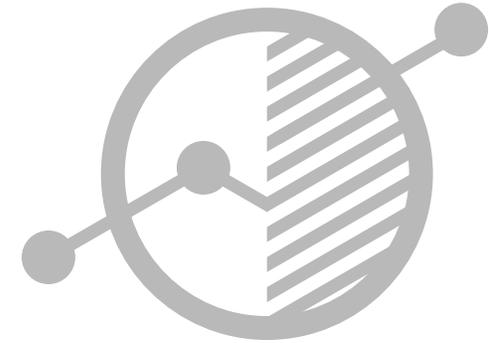
But what exactly is it? Well quite simply, it's systems that learn and grow over time, taking tasks and automating them, refining processes and finding better ways to do things.

What underpins all of this is machine learning. If you're thinking it's all a bit futuristic and far-fetched, think again. Because it's actually here right now, and it could be the biggest change in Customer Care for years, letting organizations:

- **Process large numbers of transactions** in a common, consistent, repeatable way. So scalability doesn't automatically mean big cost increases.
- **Meet the growing demand of customers**, as non-voice interactions move from 55 percent in 2015 to 85 percent in 2020 (Source: Gartner).
- **Create a consistent customer experience**, by harnessing the knowledge and expertise of customer service agents in the voice channel, and using that in the omnichannel.

# Artificial intelligence

## Take it to the next level



Today's self-care channels constantly lag behind voice channels. In fact, 40 percent of customer issues are not represented on self-care channels. So what do customers do? They pick up the phone – and push up costs.

Artificial intelligence will change all that, sharing knowledge with digital channels and reducing the cost to serve.

### **But AI is anything but robotic.**

The really clever thing is that it uses Natural Language Processing, a cutting-edge technology that:

- **Reflects how customers talk in the real world and describe their issues** – not in the language of techies or manual-speak.
- **Infers meaning rather than literally interpreting what's said**, e.g. "My account still has my old address" actually means "How do I update my address?"
- **Doesn't give canned responses**, but creates them on the fly based on each interaction.

This human-centric approach means that artificial intelligence is going to revolutionize Customer Care.

And contrary to popular myth, AI isn't going to put people out of a job. It'll just make their jobs more interesting.

With machines handling the humdrum stuff, humans can focus on more interesting tasks. And the 'intelligence' part comes from humans anyway, so they're always going to be a key element in this new and improved model.

Ask the expert

# Tim Joyce, CIO, Xerox Customer Care

## The future of artificial intelligence

### Where is artificial intelligence (AI) now and what's next?

We're really just now seeing AI take off, after many years of anticipation. Virtual assistants such as Apple Siri, Microsoft Cortana, IBM Watson or Google Now give a hint of what's to come. We'll see increasing sophistication over time as we move towards fully capable AI that's all-seeing and all-knowing. We're looking here at 'conversational AI', which handles interactions between individuals and service providers, and creates a high-quality personalized experience.

### How are we going to make this AI vision a reality?

Taking AI to the next level will be driven by four technical advances:

- **Ubiquitous computing** will happen on any device, in any location and in any format. 'Calm technology' will be embedded in everyday objects such as a fridge or glasses.
- **Behavior analytics** will allow human behavior to be understood as never before, thanks to vast quantities of data.
- **Machine learning** has advanced hugely, and will continue to be optimized over time. It can be supervised by humans, semi-supervised or even unsupervised.
- **Intelligent Agents** will support humans in their daily activities in the near future, and help them perform increasingly complex tasks.

Ask the expert

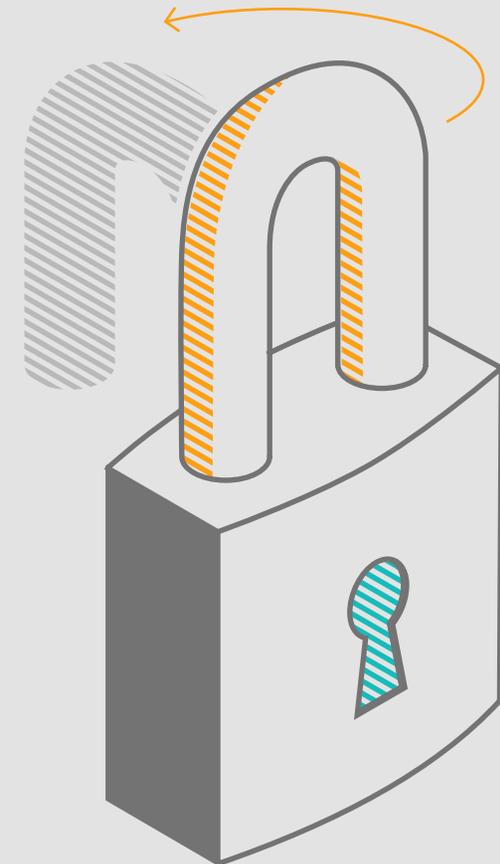
# Tim Joyce, CIO, Xerox Customer Care

## The future of artificial intelligence

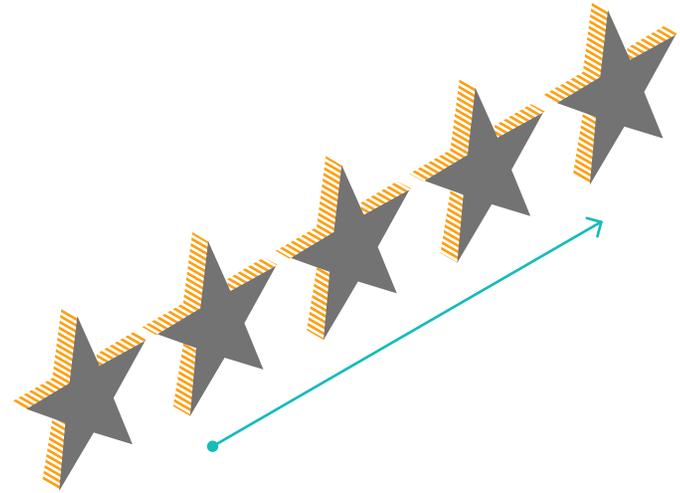
### Are there going to be any data privacy concerns with all this AI?

As we interact with technology, we create a 'data ghost' that reflects us and everything we do. It's not just web-based interactions, but mobile phones, apps, home automation technologies and the Internet of Things.

This data is hugely valuable as it allows experiences to be tailored for us. But we do need to be aware of the boundaries between personal data (available only to us), public data (which we've chosen to put out there) and corporate data (which companies hold on us). There will be some interesting calculations and trade-offs when it comes to AI and personalization.



# Customer Care for the 21st century



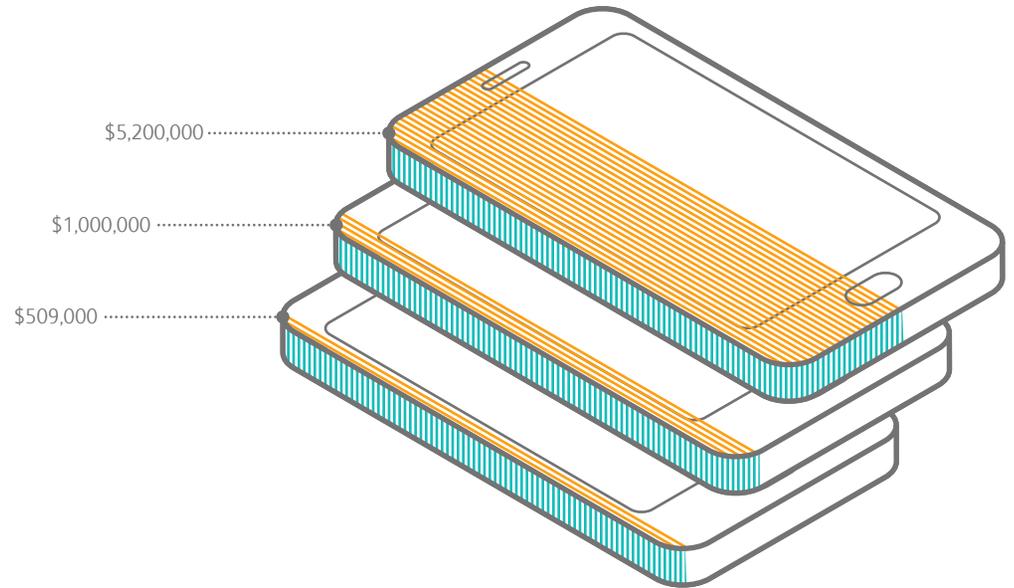
Customer Care is changing from a voice-centric industry that's focused on cost, processes and transactions to an omnichannel world that's focused on customer experience, relationships and lifecycle management.

That's a big shift, and it requires a quantum leap from an industry that's been doing things the same way for a very long time. Chasing the numbers, running the metrics, hitting the KPIs.

With the help of automation, analytics and artificial intelligence, Customer Care can truly raise its game and meet the challenges of the 21st century. These three powerful technologies will help organizations:

- Encourage customer service agents to take the initiative, focus on retention and protect the brand
- Move from reactive to proactive care
- Focus on high-value customers and easy wins
- Understand customers better to personalize and target campaigns
- Cross-sell and upsell customers in an intelligent, informed way
- And finally, square the circle by offering better service at lower cost

# Customer Care for the 21st century



Best of all, this new model of Customer Care might just turn a call center into a sales engine, and agents into salespeople. Which could just turn a cost center into a profit center.

That's a game changer, and those who make the move early will reap the rewards. So the time to get re-engineering is right now.

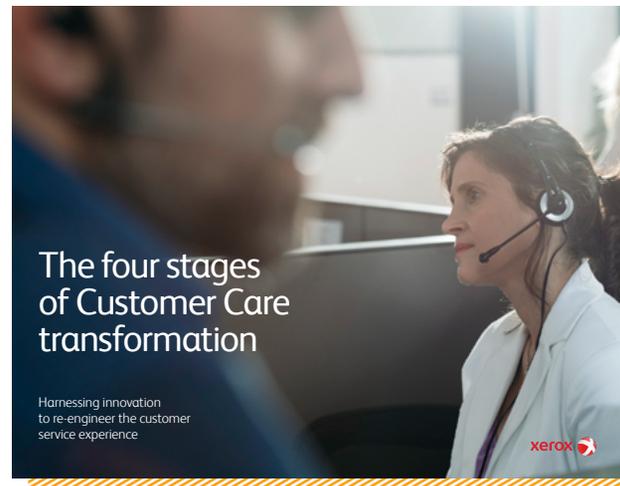
## How much could intelligent self-serve systems save you?

The three A's and your bottom line

Number of users	Cost per call	Annual contact center saving
500,000	\$5	\$529,000
1,000,000	\$5	\$1,000,000
5,000,000	\$5	\$5,200,000

# Further reading

Customer Care is at a crossroads. But there's a clear roadmap to help you make the journey and transform your customer experience. **Our eBook** will show you the way forward.



[Download >](#)

We're Xerox.

We're obsessive about customer experience.

In a world where customer experience is the one thing that will set you apart from the competition, we're constantly looking at ways of making Customer Care better, faster and more efficient.

Our best-of-breed call centers, cutting-edge technology and constant innovation transform the customer experience at every touchpoint. Through the intelligent combination of people and software, we help you cut costs and deliver better service.

Talk to us.