Business challenge

Creval Sistemi e Servizi (CSS) needed to reduce the human effort required for the internal service-support operations it provides for Credito Valtellinese (Creval), a banking group, to extend and improve those services.

Transformation

To transform its service desk operations, banking group Creval turned to its internal service unit, Creval Sistemi e Servizi, to deploy a virtual assistant powered by IBM® Watson® technology that reduced service desk calls by 80 percent and allowed staff to focus on the high-value tasks that drive the bank's customer service excellence.

Matteo Pizzicoli Director of Banking Organization and Innovation Creval Sistemi e Servizi

Results

80% drop
in the number of calls that back-office staff need to handle

92% positive feedback
from users who engaged with the AI-powered virtual assistant

40% reduction
in human effort, allowing greater focus on high-value activities

Creval Sistemi e Servizi

Transforming banking support with an AI-powered virtual assistant

Creval Sistemi e Servizi (CSS) is a fully owned subsidiary of Credito Valtellinese (Creval), a midsized banking group headquartered in Sondrio, Italy. CSS provides a range of services in areas such as IT, banking process optimization, back-office operations and real estate to the banking and the broader market. The Creval banking group has approximately 360 local branches in 11 regions, with almost 3,700 employees and total assets of EUR 26.6 billion as of September 2018. The bank's customer base comprises primarily households, small and midsized businesses, artisans, professionals and nonprofit organizations.

"This is augmented intelligence backed by human support, because we want to focus on customer service and on giving each customer the right answer."

—Matteo Pizzicoli, Director of Banking Organization and Innovation, Creval Sistemi e Servizi.

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Supporting service-focused banking

Credito Valtellinese (Creval) is a midsized banking group in Italy that differentiates itself from its competitors through its attention to customer service and satisfaction. "We are very focused on customer delight and the customer relationship," says Matteo Pizzicoli, Director of Banking Organization and Innovation at Creval Sistemi e Servizi (CSS), the IT service division of Creval. "The best way to delight our customers is to focus on service efficiency and cost reduction at the same time. What differentiates Creval is that we provide answers quickly to our customers. For example, we can give an answer to a customer asking us for a mortgage in less than 15 days. The average time for Italian banks is 30–60 days."

Positioning itself as the "retail bank of the future," Creval focuses on providing high-quality services and distinctive experiences for its customers, both in the digital and physical worlds. CSS delivers the behind-the-scenes IT services that help the bank achieve its customer service goals.

Over the past several years, CSS has invested in cutting-edge technology to support and automate many of its internal and external processes. For example, the department uses IBM

Business Process Manager systems for its Agile business process management (BPM) processes, allowing it to release new banking solutions in less than four hours. It has also made major investments in cognitive systems such as IBM Watson Analytics® technology to explore the big data in its CRM systems.

"At some point, we arrived at the conclusion that many of our processes are now very easy and very fast," says Pizzicoli. However, some internal processes, such as the bank's service desk support for bank branch employees, were neither automated nor efficient. Employees would call the service desk personnel, who would often answer the same questions or repeat the same processes throughout the day. "We wanted to focus on creating a solution to reduce or even eliminate the human effort in some of our more repetitive service desk support processes, so that our people could concentrate on the processes that add the most value to the bank — the ones that support its customers."

Creval decided to transform the service model for its internal service desk operations. It envisioned an AI-enabled system that could interpret natural language text input and provide text-based responses, activate applications or connect to human assistance, as needed. The system would be trained on all banking help desk activities and

every key knowledge field within the bank. CSS would design the system with continuous improvement in mind by using cognitive technology to allow the system to deepen its knowledge through use, and by measuring ongoing user satisfaction with the system.

Introducing Alfredo, the AI virtual assistant

Creval created an online virtual assistant and named it Alfredo, after Alfred the butler in the Batman comic series. Alfredo is now the single point of contact for branch users to request help from the organization's service desk. It's not a simple chatbot, but rather the first operator that users turn to with questions or for problem solving. Alfredo uses Watson™ technologies, including the IBM Watson Natural Language Understanding service and IBM Watson Assistant solution, running on the IBM Cloud™ platform, to clarify and classify questions, to provide answers for the most frequent and easily resolved inquiries, and to redirect more difficult and complex questions to the specialized personnel that can solve them.

CSS trained Alfredo on all 14 knowledge domains of the bank. All service desk requests now go through Alfredo, which can provide approximately 1,000 autonomous responses, without human

intervention. When human help is needed, Alfredo directs inquiry traffic to the appropriate experts via Skype so that highly trained service desk staff can spend their time most efficiently and effectively. The service is available around the clock, so bank staff don't need to wait for official service desk hours.

"We knew we wanted to try to use the cognitive services of Watson to understand whether it was possible for users to have a conversation with a machine, and whether that machine could understand the topic or problem and the request," says Pizzicoli. "We did a proof of concept, and in less than one month we realized that it was, in fact, possible."

IBM Services worked closely with CSS to define the most relevant strategic approach to reimagining its help desk service model, from proof of concept (POC) through pilot to go-live. The Services team provided methodological guidance for the cognitive technology and demonstrated how to configure and train the Watson-powered Alfredo assistant. The team also taught service desk operators how to continue to train and maintain Alfredo.

"Within two months we put a prototype into production in five branches," states Pizzicoli. "The result was a surprise because we immediately obtained an important reduction in the total effort of the people at the service desk. And we

also realized that the branch users are happy about that new approach because there is now a much easier way to interact with the service desk."

The pilot was so successful that the bank deployed Alfredo across all branches within just six months of the initial POC. Creval has since extended Alfredo's services to its back-office operations.

Beginning in 2019, Creval plans to make Alfredo available to retail banking customers. "We already have a human-to-human chat function in our internet banking that we want to improve with the aim of providing better service to the customer." says Pizzicoli. "We've already defined some use cases and presented them to our business areas, and they're very interested, so next year Alfredo can expand to serving our banking customers."

Improving efficiency, expanding service

Creval service desk and back-office personnel have a new colleague — Alfredo. The AI-powered virtual assistant has helped the bank significantly transform its operating model for service support. It has helped Creval achieve significant results by increasing the number of inquiries handled, extending service hours and reducing low-value, repetitive, human-centric activities.

Alfredo has helped reduce the number of calls fielded by back-office personnel by 80 percent. It has also reduced the efforts of service desk personnel by 40 percent — time that these employees can now spend on more complex inquiries. And 92 percent of users offered positive feedback after trying Alfredo, in part because it takes less time and effort to get an answer. According to Pizzicoli, "This is augmented intelligence backed by human support, because we want to focus on customer service and on giving each customer the right answer."

Users don't feel like they're speaking with a typical chatbot because they can type their inquiries in natural language. And even when Alfredo needs to enlist human assistance, the experience continues seamlessly. "The user doesn't have the impression that we are changing something, because they still remain in the same chat," says Pizzicoli. "First, they speak to Alfredo and ask a few questions, and Alfredo says, 'Okay, I will engage with colleagues of mine that are much more focused on that matter.' And so Alfredo passes the chat on, via Skype, to someone who can answer the question."

Alfredo can respond to more inquiries because it is not limited by personnel availability. It can also answer a nearly unlimited number of inquiries simultaneously, unlike the previous phone support system. "When there was an incident or problem with a system, our service

desk used to receive a great number of phone calls, and we couldn't answer all of them," recalls Pizzicoli. Alfredo also works around the clock, instead of on a limited schedule like telephone support.

"The cognitive system can reduce human effort and eliminate or reduce tasks that are repetitive and without value; this allows our people to be focused on the very high-value customer questions. For me, that's really powerful."

—Matteo Pizzicoli, Director of Banking Organization and Innovation, Creval Sistemi e Servizi

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Pizzicoli sums up the value of Alfredo this way: "The cognitive system can reduce human effort and eliminate or reduce tasks that are repetitive and without value; this allows our people to be focused on the very high-value customer questions. For me, that's really powerful."

Far from fearing the takeover of their jobs by a machine, service desk personnel are pleased with their new colleague. They can now provide the high-value services for which they're trained, instead of answering simple questions over and over. "The people on the service desk and in the back-office understand the value of this

approach because they reduce the total time and effort they spend providing answers, so they can do other jobs with much greater value to the bank," says Pizzicoli.

As an added bonus, the workers on the service desk now have a better atmosphere in which to work. "When they work with Alfredo on chat, it's simpler and quieter," says Pizzicoli. "There are no people all around them talking on the phone. This isn't a call center — it's knowledge workers providing technical support. Now people can concentrate and focus better on finding the answer they're giving to the branch users."

Alfredo continues learning from each chat experience, adding to its knowledge base with every encounter. Already trained on 14 internal knowledge areas of the bank, Alfredo is ready to take on external banking customers' concerns in 2019. Bringing the system up to speed should not take long. "When we start to think about engaging external customers, we immediately understand that they are focused only on a few topics," says Pizzicoli. "For internal customers, we had to create a very wide knowledge base on a lot of subjects. But the external customer has maybe 8–10 use cases that are really important."

CSS intends to create a comprehensive customer service tool with Alfredo as the concierge. "We can integrate Alfredo with our Agile BPM system so that if the customer

needs some action, Alfredo can start a service ticket in the chat," says Pizzicoli. "Alfredo could also manage appointments, for example, making a customer appointment with the manager. Or, if the manager is available by chat, by connecting the customer directly with the manager."

Pizzicoli expects that extending Alfredo's functionality to external customers will directly improve their experience and satisfaction with the bank. "Furthermore," he says, "we can use Watson Analytics to extract value from the information in the chat," and use it to improve the bank's CRM system.

The bank has combined its laser focus on customer service differentiation with its drive for technological innovation in Alfredo, and it's being noticed. The bank received the 2018 Italian Banking Association (ABI) Award for Alfredo, for "operational innovation, digitalization and innovation of internal processes." And Alfredo is just getting started.